Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of	)	**EX PARTE FILING**
	)	
Improving Public Safety Communications	)	
in the 800 MHz Band	)	
	)	WT Docket No. 02-55
Consolidating the 900 MHz Industrial/	)	
Land Transportation and Business Pool	)	
Channels	)	

Supplemental Comments Of The Consensus Parties

Aeronautical Radio, Inc. ("ARINC");
The American Mobile Telecommunications Association ("AMTA");
The American Petroleum Institute ("API");
The Association of Public-Safety Communications Officials-International, Inc. ("APCO");
The Forest Industries Telecommunications ("FIT");
The Industrial Telecommunications Association, Inc. ("ITA");
International Association of Chiefs of Police ("IACP");
The International Association of Fire Chiefs, Inc. ("IAFC") and
International Municipal Signal Association ("IMSA");
The Major Cities Chiefs Association ("MCC");
The Major County Sheriffs' Association ("MCSA");
The National Sheriffs' Association ("NSA");
National Stone, Sand and Gravel Association ("NSSGA");
Nextel Communications, Inc. ("Nextel");
The Personal Communications Industry Association ("PCIA");
The Taxicab, Limousine and Paratransit Association ("TLPA")[1]

December 24, 2002

[1] The Consensus Parties note that The Association of American Railroads ("AAR") is not currently a signatory to this document. Necessary approvals were not obtained due to business closures during the Holiday season. We anticipate their return as a signatory immediately after the holidays.

TABLE OF CONTENTS

	SUMMARY	ii
I	INTRODUCTION AND SUMMARY	2
II.	FUNDING INCUMBENT RELOCATION COSTS	4
	A. Nextel's Funding Commitment	4
	B. Funding Mechanism	7
III.	CONSENSUS PLAN – EXECUTIVE SUMMARY	8
IV.	THE CONSENSUS PLAN – A DETAILED FRAMEWORK FOR 800 MHZ REALIGNMENT	14
	A. Overview	14
	B. Phase I of the Realignment Framework: Clearing Incumbents from the New NPSPAC Block	17
	C. Phase II of the Realignment Framework: The Nextel-NPSPAC Exchange and Public Safety Relocation from the Guard Band . . .	27
	D. Nextel's Use of the 900 MHz and 1.9 GHz bands . . .	33
V.	BORDER REGION REALIGNMENT PLAN	35
VI.	POLICIES AND PROCEDURES TO MITIGATE INTERFERENCE .	39
VII.	RELOCATION OF SOUTHERN LINC	44
VIII.	CONCLUSION	46

SUMMARY

On September 23, 2002, the Consensus Parties listed on the cover page filed Comments demonstrating that its Plan meets all of the Federal Communications Commission's (the "Commission") public policy objectives in this proceeding; *i.e.,* a timely, long-term solution to CMRS – public safety interference that minimizes incumbent disruption and provides additional 800 MHz spectrum for post-September 11 public safety communications requirements.

The Consensus Parties now file these Supplemental Comments to provide additional implementation details concerning the Consensus Plan for realigning the 800 MHz Land Mobile Radio to mitigate CMRS – public safety interference. The Consensus Parties or their members represent every category of licensee operating in the 800 MHz Land Mobile Radio band and over 90 percent of the licensees affected by CMRS – public safety interference. The Consensus Plan is the only proposal before the Commission that enjoys this broad-based support.

These Supplemental Comments primarily address four issues: (1) funding the Consensus Plan; (2) procedures and processes for relocating 800 MHz incumbents; (3) post-realignment interference protection standards; and (4) border area realignment plans.

With the assistance of the other Consensus Parties, Nextel has now completed a detailed review of the costs of relocating the 800 MHz public safety licensees, private wireless licensees and high-site Specialized Mobile Radio ("SMR") systems required to retune their operations under the Consensus Plan. Nextel will fund, *up to a total of $850 million, the relocation of all 800 MHz incumbents* -- not just public safety licensees -- required to move pursuant to the Consensus Plan, *provided* that the Commission grants Nextel a replacement 10 MHz nationwide CMRS license at 1910-1915/1990-1995 in exchange for the more than 10 MHz Nextel will surrender at 700 MHz, 800 MHz and 900 MHz to make possible the Land Mobile Radio band

realignment necessary to solve CMRS – public safety interference. Cost data and analysis supporting the sufficiency of Nextel's funding commitment is set forth in this pleading and in Appendix A thereto.

The Consensus Parties propose herein a comprehensive process for implementing 800 MHz realignment in two phases: (1) clearing current incumbents from channels 1-120; and (2) moving incumbent NPSPAC public safety systems to channels 1-120. A committee representing private wireless licensees, public safety licensees and Nextel will oversee the relocation process including developing relocation frequency plans on a region-by-region basis for each of the existing 55 NPSPAC planning regions. This approach assures that the interests of all relocating licensees are considered in the realignment process.

Historically, the Commission's rules provide only co-channel interference protection to 800 MHz Land Mobile Radio licensees. The Consensus Plan separates the land mobile spectrum into two blocks to mitigate interference: a 20 MHz contiguous channel block for public safety, private wireless and SMR licensees operating noise-limited, non-cellular, high-site systems; and a 16 MHz contiguous channel block for commercial operators using interference limited, cellular, low-site frequency reuse system designs. The separation of these incompatible systems through realignment will eliminate the majority of current interference in the Land Mobile Radio band.

The Consensus Plan goes further, however, and recommends that the Commission establish specific interference protection thresholds for non-cellular block licensees that for the first time provide real protection against any remaining intermodulation interference or interference from cellular out-of-band emissions ("noise"). These new interference thresholds will allow all 800 MHz licensees to use the spectrum effectively, while requiring cellular

licensees to remedy interference arising from their authorized operations, provided the non-cellular system meets certain operating parameters. New intermodulation and noise interference standards will protect non-cellular licensees in the new 800 MHz Guard Band (channels 321-400), with adjustments to reflect the reduced separation between these licensees and the beginning of the cellular channel block (channel 401). The Consensus Plan also proposes new receiver performance standards and future hardware and system design options to take full advantage of the interference elimination opportunities made possible by separating incompatible noise-limited and interference-limited land mobile systems through 800 MHz realignment.

The Consensus Parties propose specific realignment plans for each of the regions in the United States – Canada Border Area and the United States – Mexico Border Area. The Land Mobile Radio spectrum in the Canadian and Mexican Border Areas is divided between the respective countries along their common borders; as a result, the reduced U.S. primary spectrum in the border areas its allocated among the various land mobile radio services differently than it is in the rest of the country. The Consensus Parties propose border area realignment plans that separate public safety and cellular systems to the maximum extent possible, consistent with the national realignment plan. *No current primary border area licensee will lose any channels due to realignment,* and secondary use of Mexican and Canadian channels by U.S. licensees in the U.S. Border Areas is preserved.

The Consensus Plan offers the Commission a comprehensive and effective solution to the continuing problem of CMRS – public safety interference. Every provision of the Consensus Plan is interrelated and complements every other provision to assure that *no 800 MHz incumbent licensee loses spectrum due to realignment,* while putting into place 800 MHz reorganization essential to mitigating CMRS – public safety interference. In short, the Consensus Plan must be

adopted as a whole; any material changes will jeopardize the voluntary commitments of the affected licensees and their representative associations essential to successful implementation.

Accordingly, the Commission should expeditiously release a Report and Order adopting in full the 800 MHz Consensus Plan.

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of	)	**EX PARTE FILING**
	)	
Improving Public Safety Communications in the 800 MHz Band	)	
	)	WT Docket No. 02-55
Consolidating the 900 MHz Industrial/ Land Transportation and Business Pool Channels	)	

SUPPLEMENTAL COMMENTS OF THE CONSENSUS PARTIES

The Association of Public-Safety Communications Officials-International, Inc. ("APCO"); the International Association of Chiefs of Police ("IACP"); the International Association of Fire Chiefs, Inc. ("IAFC") and International Municipal Signal Association ("IMSA"); the Major Cities Chiefs Association ("MCC"); the Major County Sheriffs' Association ("MCSA"); and the National Sheriffs' Association ("NSA") (collectively, "Public Safety Organizations"); in conjunction with Aeronautical Radio, Inc. ("ARINC"); the American Mobile Telecommunications Association ("AMTA"); the American Petroleum Institute ("API"); Forest Industries Telecommunications ("FIT"); the Industrial Telecommunications Association, Inc. ("ITA"); the National Stone, Sand and Gravel Association ("NSSGA"), the Personal Communications Industry Association ("PCIA"); the Taxicab, Limousine and Paratransit Association ("TLPA") (collectively, the "Private Wireless Coalition") and Nextel Communications, Inc. ("Nextel") (collectively with the Public Safety Organizations and the Private Wireless Coalition, the "Consensus Parties") hereby submit

these Supplemental Comments on the Federal Communications Commission's ("the Commission") *Public Notice* regarding the Consensus Plan.[2]

I. INTRODUCTION AND SUMMARY

On September 23, 2002, the Consensus Parties filed Comments in this Docket on their proposal to realign the 800 MHz Land Mobile Radio band to mitigate CMRS – public safety interference. Since that filing, the Consensus Parties have more fully developed certain aspects of the Consensus Plan, including additional details concerning a number of issues on which the Commission sought comment in its Notice of Proposed Rule Making in this Docket,[3] but that were not completely addressed by the Consensus Parties in their previous filings.[4] Specifically, these Supplemental Comments provide more detail on the following issues:

- Funding the Consensus Plan for 800 MHz Realignment, including funding the costs of all licensees relocating under the Plan.
- The timeline and mechanics for relocating 800 MHz incumbent licensees under the Consensus Plan, for Nextel relocating from and contributing spectrum in the 700 MHz, 800 MHz and 900 MHz bands to enable realignment, and for granting Nextel replacement licenses in the 1.9 GHz band.
- Implementing the Consensus Plan in the border areas adjacent to Canada and Mexico.

---

[2] By Public Notices dated September 6, 2002 and September 17, 2002, the Commission invited comments on the Consensus Plan and other proposals under consideration herein. *See* Public Notice, "Wireless Telecommunications Bureau Seeks Comment on 'Consensus Plan' Filed in the 800 MHz Public Safety Interference Proceeding," DA 02-2202 (rel. Sep. 6, 2002); *see also* Public Notice, "Wireless Telecommunications Bureau Clarifies Scope of Comments Sought in 800 MHz Public Safety Proceeding (WT Docket 02-55)," DA 02-2306 (rel. Sep. 17, 2002).

[3] *See Improving Public Safety Communications in the 800 MHz Band, Consolidating the 900 MHz Industrial/Land Transportation and Business Pool Channels*, Notice of Proposed Rulemaking, 17 FCC Rcd 4873 (2002) ("*NPRM*").

[4] In their September 23, 2002 Comments, the Consensus Parties stated that they would file at a later date additional details concerning certain aspects of the Plan, such as funding requirements and border area realignments.

- The rights and obligations of 800 MHz Land Mobile Radio and Commercial Mobile Radio Service ("CMRS") licensees during and after realignment.

- Relocating Southern LINC and non-Nextel Economic Area ("EA") Specialized Mobile Radio ("SMR") licensees from the "new" NPSPAC channels, 806-809/851-854 MHz.

The widely-supported Consensus Plan stands as the only proposal that will achieve the Commission's goals in this proceeding; *i.e.,* improving public safety communications at 800 MHz with minimal disruption to incumbent licensees, while making available additional near-term 800 MHz spectrum for public safety communications services.[5] This supplemental filing addresses the remaining concerns with the Consensus Plan. With this additional information, the Commission has a comprehensive record and a solid basis upon which to move forward expeditiously to adopt and implement the Consensus Plan for improving public safety communications at 800 MHz.

The Consensus Plan is the only proposal before the Commission that enjoys the support of organizations representing over 90 percent of the 800 MHz Land Mobile Radio licensees affected by CMRS – public safety interference. It articulates a comprehensive solution that reflects the participation and contributions of the full range of licensees in the 800 MHz Land Mobile Radio band. All provisions of the Consensus Plan are interrelated, and each of these parts is an essential component of this solution. Every part of the Consensus Plan works with every other part to assure that *no 800 MHz incumbent loses spectrum due to realignment,* while at the same time, implementing the spectrum allocation changes necessary to mitigate CMRS – public safety interference, increasing public safety spectrum at both 800 MHz and 700 MHz, minimizing disruption of incumbent licensees and separating spectrally non-compatible

---

5 *NPRM* at para. 5.

technologies. Any material modification of the Consensus Plan would eliminate the voluntary commitments of and cooperation among the affected licensees indispensable to its successful and expeditious implementation.

In the following section, the Consensus Parties detail financial arrangements for funding the relocation costs of all 800 MHz incumbent licensees required to relocate under the Consensus Plan realignment. Following that section is an executive summary of the Consensus Plan setting forth major benchmarks and timelines; subsequent sections provide additional details for implementing the Consensus Plan, including creating representative entities to identify relocation channels, perform frequency coordination, and provide overall guidance for the realignment process. This supplemental filing also sets forth specific realignment plans for the U.S. – Mexico and U.S. – Canada Border Areas, Nextel's interim use and subsequent return of its 900 MHz licenses to the Commission, and specific provisions for relocating certain unique 800 MHz incumbent licensees.

II. FUNDING INCUMBENT RELOCATION COSTS

A. Nextel's Funding Commitment

In the Consensus Plan, Nextel agreed to contribute up to $500 million to cover the costs of relocating 800 MHz public safety licensees consistent with the Plan.[6] In previous comments in this proceeding, the Consensus Parties indicated that they were continuing to discuss the possibility of Nextel or other sources providing funding support for all licensees required to

[6] Nextel's funding offer was and is expressly conditioned on the Commission adopting the comprehensive Consensus Plan for correcting CMRS – public safety interference substantially as proposed, including granting Nextel a replacement 10 MHz nationwide CMRS license at 1910-1915/1990-1995 GHz in return for the 700 MHz, 800 MHz and 900 MHz spectrum Nextel would surrender to make realignment possible and thereby mitigating such interference.

relocate to effectuate the Plan,[7] as well as undertaking research to better identify and validate the costs of retuning 800 MHz incumbent licensees consistent with the Consensus Plan.

Nextel, with the cooperation of the other Consensus Parties, has now completed a detailed review of the costs of relocating incumbent 800 MHz public safety licensees both National Public Safety Planning Advisory Committee ("NPSPAC") and non-NPSPAC, Business and Industrial/Land Transportation ("B/ILT") licensees, and high-site SMR ("H-SMR") licensees in accordance with the Consensus Plan. The analysis included collecting detailed information about all incumbent licensees including, but not limited to: numbers of handsets and mobile units in service, types of base station/transceiver equipment deployed, whether handsets and base station equipment can be retuned to the channels specified in the Consensus Plan or require replacement, the availability of crystals, code plugs and other hardware and software required for retuning this equipment, consulting/legal fees, and other actual retuning costs. The analysis also identified procedures and processes for assuring minimal disruption to all incumbents, including temporarily deploying duplicate systems where necessary to prevent downtime, and processes for collecting and retuning handsets consistent with the entity's daily operating requirements. Appendix A contains a summary of the cost information Nextel has collected with the cooperation from the Consensus Parties

Based on the information, analyses and determinations described above, Nextel will fund the required relocation of 800 MHz incumbent licensees pursuant to the Consensus Plan *up to a total of $850 million, of which $700 million is dedicated for public safety licensees and $150 million is dedicated for non-public safety licensees*. Nextel's increased commitment includes funding the relocation costs of all 800 MHz incumbents required to relocate pursuant to the

[7] *See* August 7, 2002 Reply Comments of the Consensus Parties at page 19 and the September 23, 2002 Consensus Parties Comments at pages 9-10.

Consensus Plan, not just public safety communications licensees, provided that the Commission grants Nextel a replacement 10 MHz nationwide CMRS license at 1910-1915/1990-1995 GHz in the Report and Order in exchange for the spectrum the Consensus Plan requires Nextel to surrender to effectuate realignment and mitigate CMRS – public safety interference.

The Private Wireless Coalition is highly confident that this commitment will cover the reasonable costs of retuning/relocating B/ILT and H-SMR incumbents to comparable channels in accordance with the realigned non-cellularized channel block at 806-816/851-861 MHz, new Guard Band at 814-816/859-861 MHz, and cellularized channel block at 816-824/861-869 MHz, as set forth in the Consensus Plan. Nextel is also highly confident that its commitment will cover the reasonable retuning/relocation costs of B/ILT and H-SMR incumbents, as described above, as well as the required relocation of 800 MHz incumbent public safety licensees pursuant to the Consensus Plan.

The Public Safety Organizations believe that Nextel's revised funding commitment reflects a reasonable estimate of total costs for public safety licensees, subject however, to several significant variables. In particular, the Public Safety Organizations believe that there continues to be uncertainty as to the number of radios that will need to be replaced as part of the plan, which could have a significant impact on the total costs. The Public Safety Organizations agree with Nextel that the vast majority of radios will not require replacement to accommodate the new frequency assignments. The Public Safety Organizations also believe, however, that a relatively small, *but still uncertain,* percentage of radios in use (specifically, certain older models that may still be in use on NPSPAC systems) may need to be replaced due to reprogramming constraints. The substantial cost difference between replacing and reprogramming a radio is such that small variations in the total number of radios to be replaced will have a significant impact on

the total cost of implementing the Consensus Plan. This uncertainty is mitigated, however, by two factors in the Consensus Plan: (1) the basic requirement that no public safety licensees will be required to move without full compensation, and (2) the requirement that funding be secured to move an entire NPSAPC Region before any moves are initiated in that Region. These factors assure that no public safety incumbent will be required to relocate should Nextel's commitment prove inadequate.

B. Funding Mechanism

In previous filings herein,[8] the Consensus Parties proposed creating an escrow account funded by Nextel to provide security for Nextel's then-commitment of up to $500 million to cover public safety's 800 MHz relocation costs. Upon further consideration, the Consensus Parties have modified the earlier proposal to provide additional security for Nextel's increased funding commitment consistent with accepted commercial practices, as described below.

The Consensus Parties will establish a Relocation Fund to finance incumbent retuning costs, funded by Nextel, and managed by an independent Fund Administrator acceptable to Nextel, and subject to the reasonable consent of APCO, IACP, IAFC, IMSA, and the Private Wireless Coalition. Nextel has agreed to pay up to $850 million for the relocation expenses of incumbents required to relocate to carry out 800 MHz realignment consistent with the Consensus Plan. Within five business days of the effective date of the Commission's Report and Order adopting the Consensus Plan (the "Consensus Plan Order"), Nextel will make an initial $25 million cash contribution to the Fund, and will continue to make periodic contributions so that the Fund Administrator has funds on deposit from which to pay Plan retuning costs.

---

[8] *See* August 7, 2002 Reply Comments of the Consensus Parties at page 2; Nextel's August 7, 2002 Reply Comments at pages 31-32.

In addition, Nextel will make the following arrangements to assure the Commission and incumbent licensees that its funding commitment over the life of the Plan will be satisfied. Nextel will secure its ability to fund the Plan retuning costs by setting up a separate corporate entity(ies), the purpose of which is to hold assets to secure the Nextel funding obligation. The stock of the entity(ies) will be pledged to an escrow agent/trustee, with the power to sell the assets and hold the cash proceeds in escrow for the benefit of the Fund Administrator in the event Nextel fails to meet its payment obligations under the Plan. The assets to be held in the corporate entity(ies) will be the 10 MHz of replacement spectrum in the 1.9 GHz band for which Nextel will be granted licenses upon the effective date of the Report and Order.[9] Nextel's commitment to the funding is further cemented by its additional, immediate contribution of its 700 MHz band licenses with a minimum value of $354, 711,000.[10]

III. CONSENSUS PLAN -- EXECUTIVE SUMMARY

As the Consensus Parties have explained in their previous filings, the Consensus Plan recognizes that the underlying cause of CMRS – public safety interference is the Land Mobile Radio Band's mixed spectrum allocation for different communications services with conflicting

---

[9] Nextel reserves the right to use the pledged spectrum during the duration of the Plan, and the right at any time to contribute cash or cash equivalents to the escrow in place of the pledged spectrum (for example, irrevocable letters of credit issued by one or more domestic banks whose deposits are federally insured) equal to the amount of its then remaining funding obligations or, with the reasonable consent of the Consensus Partners whose interests remain affected, securities or other assets with value equal to or greater than the amount of those remaining funding obligations. Nextel also reserves the right to remove excess collateral from the Plan as its obligations are reduced.

[10] Nextel purchased its 700 MHz spectrum in two separate auctions, once in September 2000 and the other in February 2001. Nextel also acquired two 700 MHz Guard Band licenses I March 2002 for a total sum of $354,711,000. Nextel's surrender of this spectrum to the Commission as it receives the 10 MHz 1.9 GHz license at the commencement of the realignment plan further evidences its commitment to the plan and to funding incumbent relocation expenses.

design principles and communications goals.[11] Complicating this reality is the adjacency of the upper end of the Land Mobile Radio Band to the spectrum allocated for the two Cellular Telecommunications Service providers in each market, at 824/869 MHz. The fundamental remedial action necessary to correct CMRS – public safety interference at 800 MHz is to separate high-site and low-site system architectures into two distinct spectrum blocks, with the low-site block adjacent to the architecturally compatible Cellular allocation. Accordingly, the Consensus Plan would create two blocks of contiguous spectrum in the 800 MHz Land Mobile Radio Band: a 20 MHz block for non-cellularized (high-site, high-power) operations, and an adjacent 16 MHz block for cellularized (low-site, low-power) system architecture.[12]

The new non-cellularized block would be composed of three band segments. First, the lower 6 MHz, 806–809/851-854 MHz (channels 1-120), would be cleared for relocating the current NPSPAC licensees at 821-824/866-869 MHz (channels 601-720) that is currently adjacent to the Cellular-A Block.[13] This would occur during Phase I of the realignment process, as discussed further below. Second, the 10 MHz of spectrum at 809–814/854–859 MHz (channels 121-320) would remain allocated to interleaved non-NPSPAC public safety, B/ILT

---

[11] See Consensus Party August 7, 2002 Comments at pages 8-9, and Consensus Parties September 23, 2002 Comments at page 5.

[12] Throughout this proceeding, commenters have referred to the 800 MHz band and both existing and proposed sub-bands therein variously by 800 MHz channel numbers and by megahertz designation. This filing primarily uses channel numbers in describing the relocation process. For ease of reference, Appendix B hereto provides a chart setting forth the 800 MHz band segments at issue herein by both megahertz range and channel numbers.

[13] For consistency, the Consensus Parties have used channel designations in 25 kHz increments. Thus, while the NPSPAC spectrum band is defined in the Commission's Rules as starting at channel 601 and continuing to channel 830, the Consensus Parties have converted these channel designations to 25 kHz equivalents to make the channels consistent with the remainder of channels in the 800 MHz band.

and H-SMR incumbents; these systems have operated and can continue to operate in interleaved spectrum without mutual interference. No incumbent licensee, other than Nextel, would be required to relocate from these frequencies. Third, a 4 MHz "Guard Band" would be created at 814-816/859-861 MHz (channels 321-400) and assigned primarily to campus-type B/ILT systems and other "interference-resistant" B/ILT and high-site SMR systems.[14] *Under the Consensus Plan, over 70% of all high-site SMR and B/ILT incumbent licensees would not be relocated;* those that would be retuned (incumbents in the 1-120 channel block) would remain at 800 MHz.[15]

Phase II of the Consensus Plan involves moving the NPSPAC licensees as a group from their current assignments to the new NPSPAC channels. Moving the NPSPAC licensees in a block retains the spectrum licensing and spectrum use efficiencies developed over the past decade by the NPSPAC regional planning committees. Thus, NPSPAC licensees would relocate as a group 15 MHz lower to preserve the license assignments developed under each of the 55 NPSPAC regional plans and to be adjacent to future Public Safety allocations in the 700 MHz

---

[14] Public safety incumbents will have the option to relocate from the new Guard Band to the interleaved spectrum at 809-814/854-859 MHz. Such public safety incumbent relocation will be eligible for reimbursement from the Relocation Fund. The Relocation Coordination Committee ("RCC"), as discussed herein, will consider requests by non-public safety systems licensed in the Guard Band to relocate outside of the Guard Band should a particular licensee demonstrate that the nature of its operations would significantly benefit from relocating out of the Guard Band. These non-public safety licensees would be responsible for all of their own relocation costs and would not be eligible to receive reimbursement from the Relocation Fund. The RCC would generally assign such Guard Band licensees replacement channels that would not otherwise become available for exclusive public safety licensing (i.e., not channels vacated by Nextel.)

[15] Remaining at 800 MHz minimizes the cost and disruption of relocating these licensees since, in the vast majority of cases, their existing equipment can be easily retuned within the 800 MHz band. Some of the other proposals before the Commission would require relocating the vast majority of B/ILT incumbents, in some cases to 900 MHz, or even the more drastic proposal of relocating all of Public Safety to 700 MHz, causing billions of dollars in new equipment with no identified funding.

band. The old NPSPAC channels would then become part of the low-power spectrum block at 816 – 824/861 – 869 MHz (channels 401-720). Licensees such as Nextel, currently operating in the non-cellularized block using a cellular, low-site architecture, would move up to the cellularized block in exchange for their existing authorizations.[16]

Implementing the Consensus Plan will require Nextel to relocate at least twice: first, by swapping out channel 1-120 incumbents to Nextel assignments in the 121-400 channel block; and second, by relocating from the 1-120 channel block (and any remaining assignments in the 121-400 channel block) to the then-vacated old NPSPAC channels at 821-824/866-869 MHz. No other 800 MHz incumbent licensees will have to relocate a channel more than once to implement the Consensus Plan.

Under the terms of the Consensus Plan, relocation planning and implementation would occur on a regional basis using the 55 NPSPAC Regional Planning Areas established by the Commission.[17] Phase I relocations would not commence within a Region unless full funding for

---

[16] As discussed herein, the Consensus Parties propose that incumbent licensee Southern LINC be permitted to continue to operate cellular mixed high-site and low-site architecture in the non-cellular block in its current geographic service area with certain safeguards against CMRS – public safety interference.

[17] In 1986, the Commission released the then-reserved channels at 821-824/866-869 MHz for public safety use. See Amendment of Parts 2 and 22 of the Commission's Rules Relative to Cellular Communications Systems, Amendment of Parts 2, 15, and 90 of the Commission's Rules and Regulations to Allocate Frequencies in the 900 MHz Reserve Band for Private Land Mobile Use, Amendments of Parts 2, 22, and 25 of the Commission's Rules to Allocate Spectrum for, and to Establish Other Rules and Policies Pertaining to the Use of Radio Frequencies in a Land Mobile Satellite Service for the Provision of Various Common Carrier Services, Report and Order, 2 FCC Rcd 1825, ¶ 99 (1986) ("NPSPAC Order"). The Commission created 55 Regional Planning Areas for these channels and required the establishment of Regional Planning Area Committees to coordinate the licensing of these channels, including prioritizing competing needs for public safety communications within each region. The Consensus Plan would preserve the licensing priorities and efficiencies realized by these Committees over the past 15 years.

all Phase I relocations within the Region is committed and available; the same pre-funding commitment requirement would apply in Phase II. Nextel is committing funds sufficient to implement and complete the relocations required by the Consensus Plan, as discussed in Section I, *infra*. In addition, a region-by-region relocation process provides additional assurance that no incumbent licensees will be required to relocate within a Region, under either Phase I or Phase II, unless funding is available for all of the licensee relocations required in that Region.

After completing the realignment and relocation process in each NPSPAC region, including licensing and relocating Nextel's assignments from the non-cellularized block to the old NPSPAC channels, any remaining 800 MHz spectrum vacated by Nextel in the non-cellularized block and any remaining white space on Public Safety Pool channels would be available exclusively for public safety use for five years. After this five-year period, any of the 800 MHz non-cellularized block channels vacated by Nextel (other than Public Safety Pool channels) that have not been licensed to public safety communications providers will become available for licensing to B/ILT and high-site SMR eligibles, as well as public safety communications entities.[18]

[18] There is one clarification to the above: either B/ILT or Public Safety applicants may, after completion of the Consensus Plan realignment in a market, file applications for new licenses on unlicensed ("white space") B/ILT Pool channels in the new Guard Band that had been vacated by B/ILT licensees electing to relocate to channels 120-320 or 900 MHz (i.e., not Nextel). Public Safety applicants would be eligible for such Guard Band B/ILT channels only upon a showing that no 800 MHz Public Safety Pool channels are available to satisfy their requested use. The Consensus Parties also note that B/ILT licensees electing to relocate voluntarily out of the Guard Band to channels 121-320 would, whenever possible, be assigned to channels that would not otherwise be subject to the five-year exclusive period for public safety applications.

The Consensus Plan calls for the Commission to redesignate Nextel's 700 MHz Guard Band spectrum, 4 MHz virtually nationwide[19], for public safety use, and Nextel's 4 MHz of 900 MHz SMR spectrum to B/ILT and high-site SMR operations. The Consensus Plan offers an incentive for 800 MHz B/ILT and high-site SMR incumbents to relocate voluntarily to 900 MHz by offering them an eventual 50 kHz channel assignment for each 25 kHz 800 MHz channel vacated. This option is intended to encourage B/ILT and high-site SMR operators desiring additional spectrum and/or contemplating equipment change outs to move expeditiously to 900 MHz, thereby reducing congestion on the 800 MHz band and creating additional "green space" to facilitate the realignment process.[20]

To make 800 MHz realignment possible, Nextel will also contribute a running average of 2.5 MHz at 800 MHz for accommodating the relocations of non-cellularized systems and for making additional 800 MHz spectrum available for public safety communications systems. Nextel will also contribute up to $850 million for funding public safety and private wireless incumbent relocations. The Consensus Plan calls for Nextel to be made whole on a spectral basis by the Commission assigning Nextel, as part of the Report and Order in this proceeding, a nationwide license for 10 MHz of paired spectrum at 1910-1915/1990-1995 MHz for CMRS services.

---

[19] In 92 of the top 100 cities nationwide, Nextel is the 700 MHz Guard Band licensee for the 4 MHz block. Nextel's 700 MHz licenses cover 94% of the U.S. population.

[20] In the context of this document, "green space" refers to spectrum that incumbent licensees will vacate to make way for relocating other incumbents to effectuate 800 MHz realignment. "White space" refers to spectrum available for initial licensing either now, prior to realignment, or at the completion of the Consensus Plan realignment.

Thus, to summarize, the Consensus Plan for improving public safety communications at 800 MHz consists of the following basic actions. Each is described in detail in the following sections of this filing.

- *Phase I:* All non-Nextel incumbents relocate from channels 1-120 to comparable channels licensed to Nextel (or if necessary to "white space") in the non-cellular block (channels 121 – 400) on a 1:1 swap basis in each NPSPAC Region; Nextel temporarily exclusively occupies channels 1- 120.

- B/ILT and high-site SMR incumbents voluntarily relocating to 900 MHz will be relocated during Phase I or as quickly as possible thereafter.

- *Phase II:* On a region-by-region basis, all NPSPAC licensees relocate to channels 1-120 through 1:1 channel swaps with Nextel, maintaining existing co-channel separation and Regional Plan assignments (Regional Planning Committees canmodify Plans prior to relocation to improve spectrum efficiency), and resulting in Nextel relocating to the vacated "old NPSPAC channels," (channels 601-720). Incumbent public safety licensees in the new 800 MHz Guard Band (channels 321 – 400) have the option of relocating to Nextel assignments (or if necessary public safety pool "white space") in the non-cellular block outside the Guard Band (channels 121 – 320).

- Nextel vacates any remaining incumbency in the non-cellular block; the resulting "white space" vacated by Nextel is available only to public safety applicants for five years.

IV. THE CONSENSUS PLAN – A DETAILED FRAMEWORK FOR 800 MHz REALIGNMENT

A. Overview

The *NPRM* requested comment on how "a proposal for reconfiguration of the 800 MHz land mobile band . . . would be implemented."[21] The Consensus Parties now provide a detailed schedule and procedures for the 800 MHz incumbent relocations required under the Consensus Plan. The Consensus Plan would expeditiously realign the Land Mobile Radio band with minimal disruption to incumbent licensees, as described further below and detailed in the "800 MHz Realignment Draft Rule Framework" ("Realignment Framework"), attached as Appendix

[21] *NPRM* at para. 32.

C . A chart depicting each of the realignment steps detailed below and the associated timeline for each step is included at Appendix D. The Consensus Parties urge the Commission to incorporate this comprehensive realignment framework into its Report and Order in this proceeding.

To facilitate the relocation process, the Consensus Parties recommend creation of a "Relocation Coordination Committee" ("RCC") to carry out certain frequency designation and coordination, dispute resolution and licensing application responsibilities during the realignment process.[22] The RCC would oversee the realignment process generally, and through constituent committees, develop and certify to the Commission the relocation plans for both Phase I and Phase II of the realignment process. The RCC should be representative of all 800 MHz incumbents subject to relocation under the Consensus Plan, such as public safety licensees, private land mobile radio licensees including utilities, traditional commercial operators ("H-SMRs") and Nextel. While the RCC should be representative of the various categories of 800 MHz licensees and end users, it need not include a representative for every type of licensee and end user. The RCC should be sized to incorporate the skill sets and licensing knowledge critical to implementing and completing the Consensus Plan realignment quickly and efficiently. The Consensus Parties intend that the RCC remain small enough to work efficiently and respond quickly to resolve relocation issues.

Accordingly, the Consensus Parties recommend that the Land Mobile Communications Council ("LMCC") be asked to designate from among its membership four members of the five-member RCC. The LMCC is a nonprofit association representing nearly all of the diverse

[22] The reasonable expenses of the RCC and its private wireless and public safety members are eligible for compensation from the relocation fund.

interests in the land mobile telecommunications sector, such as public safety, industrial/land transportation, private radio, specialized mobile radio and utilities. Two designees would represent public safety licensees, two would represent private wireless licensees. The final RCC member would be Nextel – the holder of the largest number of licenses in the band and the licensee that will relocate more often than any other in this process.[23]

As part of its responsibility for generally overseeing 800 MHz realignment the RCC would, as one of its first actions, prioritize the 55 NPSPAC Regions for realignment relocations in descending order of population as modified to give relocation priority to those Regions with the greatest incidence and severity of CMRS – public safety interference.[24] The RCC will also be responsible, during the realignment process, for working with public safety licensees constructing new communications systems to have them built on their post-alignment channels wherever possible, rather than on their current channel assignments. The Consensus Parties recognize that some 800 MHz licensees, including a number of public safety communications licensees, plan to commence new 800 MHz system deployments during the proposed relocation period. Some wide-area; *i.e.,* statewide public safety communications networks, have already commenced construction and have scheduled phased deployments over the next several years. The Consensus Parties recommend that the Commission direct such licensees, from the effective date of the Report and Order herein, to construct such stations and systems on the channels they will be licensed on post-realignment, to the extent possible, thereby avoiding the unnecessary

---

[23] Further details of the RCC's structure are described at Appendix C, Section I. E.

[24] Appendix E provides a sample realignment prioritization of the 55 NPSPAC Regions in accordance with the criteria set forth above. A final priority determination would be made by the RCC taking into account existing inter-regional planning and the benefits and costs of relocating incumbent licensees within certain adjoining regions simultaneously.

cost and inconvenience of relocating such recently-constructed facilities. Accordingly, the RCC would be responsible for working with such incumbents, and the current licensees of the channels to which they will be relocated, to arrange their initial construction and deployment on the realigned channels whenever possible. Constructing new systems on the realignment channels will facilitate the overall realignment process, reduce realignment costs, and minimize the disruption of incumbent licensee services, consistent with the Commission's objectives as articulated in the Notice.[25]

B. Phase I of the Realignment Framework: Clearing Incumbents from the New NPSPAC Block

Phase I of the Realignment Framework would begin on the effective date of the Report and Order of this proceeding and be completed within 33 months. During Phase I, all incumbent licensees would relocate out of the new NPSPAC Block at 806-809/851-854 MHz (channels 1-120). Incumbent public safety licensees at 806-809/851-854 MHz would be relocated either to spectrum vacated by Nextel in the non-cellularized block at 809-814/854-859 MHz (channels 121-320), or to currently unlicensed Public Safety Pool spectrum in that band segment. B/ILT and high-site SMR licensees at 806-809/851-854 MHz electing to remain in the 800 MHz band would be moved either to spectrum given up by Nextel at 814-816/859-861 MHz (the "Guard Band" channels 321-400) or, if there is insufficient spectrum in the Guard Band, to the Nextel-vacated or otherwise available B/ILT pool channels in the non-cellularized band at 809-814/854-859 MHz (channels 121-320).

---

[25] *See e.g., NPRM* at para. 2. Consistent therewith, the Consensus Parties note that some public safety systems and wide-area private licensees operate across NPSPAC Region boundaries. Public safety systems that cross NPSPAC boundaries will retune once -- they would not have to partially retune for one Region, and then complete retuning for the portion of their system that lies in a different Region. Certain wide-area private systems will be retuned in whole prior to beginning region-by-region retuning, as discussed *infra.*

These relocations will be achieved through channel exchanges with Nextel as described above. To guide this process, the RCC would establish a Phase I Planning Committee. The Phase I Planning Committee shall be appointed by and responsible to the RCC, and will be composed of one RCC-member representative each representing (1) a public safety certified frequency coordinator; (2) a B/ILT certified frequency coordinator; and (3) Nextel. Both the public safety and B/ILT certified coordinators so selected must have extensive prior experience in the planning and coordination of 800 MHz radio systems. The experience and reputation of the Phase I Planning Committee members is important to ensure that incumbent licensees have a high degree of confidence that their interests are being considered in the channel relocation process.

The Phase I Planning Committee will act by consensus. Among other things, the Phase I Committee must review each channel designation to assure that the selected channels for each relocatee will not create or receive harmful co-channel interference for the relocatee, or for channels 121-400 non-cellular block incumbents, particularly public safety communications incumbents and other incumbent licensees providing communications used for protecting life, health and property.

To facilitate this process, the Commission must require all channel 1-120 incumbents in NPSPAC regions 1-14, as prioritized by the RCC,[26] to provide to the Commission and to the

[26] The Consensus Parties have used the NPSPAC Planning Region prioritization set forth in Appendix E as the basis for allocating realignment resources and establishing manageable timelines for relocating 1-120 block incumbents in Phase I, and NPSPAC channel incumbents in Phase II. The first 14 regions include approximately half of the total number of incumbent systems that must be retuned in the 1-120 channel block, and the NPSPAC block, respectively. Accordingly, the Consensus Parties propose retuning in Phase I all 1-120 channel block incumbents in regions prioritized 1-14 first, followed by retuning of all 1-120 channel block incumbents in the regions prioritized 15-55. Similarly, in Phase II, the Consensus Parties would retune current NPSPAC incumbents in regions prioritized 1-14 first, followed by the NPSPAC

RCC a full description of their licensed systems as specified in Appendix C, within 45 days of the effective date of the Report and Order herein.[27] The Commission's Rules should be amended, as may be necessary, to provide for the confidentiality of this information and limit its use by the RCC and its constituent committees, or any participant thereto, solely to the frequency coordination and frequency planning activities necessary to complete 800 MHz realignment.[28]

Based on this information, the Phase I realignment process would proceed as follows. First, within 90 days of the effective date of the Report and Order, the Phase I Committee would establish a plan for relocating the 13 non-Nextel incumbent constructed EA licensees in the 1-120 channel block to comparable existing Nextel EA licenses in channels 121 - 400.[29] The goal of the Consensus Plan is for all non-Nextel EA licenses in channels 1-120 to be exchanged for Nextel EA licenses in channels 121-400.[30] At the same time, the Phase I Committee would also

---

incumbents in regions prioritized 15-55. If the RCC significantly revises the NPSPAC Planning Regions prioritization in Appendix E, the realignment plan may have to be revised accordingly to maintain a manageable number of incumbent relocations in each timeframe.

[27] The Consensus Parties request that the Rules adopted in this proceeding provide for the Commission to issue, within five days of the effective date of the Report and Order, a Public Notice directing channel 1-120 non-Nextel incumbents (including the EA and wide-area licensees discussed below) to provide this information to it and to the RCC. The Public Notice would also direct the RCC to send the Public Notice to each affected 1-120 licensee, by certified mail, return receipt requested, or other proof of delivery service.

[28] The same confidentiality provisions should apply to the system information necessary for retuning provided by incumbent NPSPAC licensees and public safety Guard Band licensees.

[29] Thirteen entities other than Nextel hold EA licenses in the 1-120 channel block. Nearly all of the 13 licensees hold more than one EA license.

[30] EA licensees moving from channels 1-120 will receive spectrum equivalent to their current channels; *i.e.,* (1) comparable incumbency; and (2) contiguous channels to the extent available. In very few EAs, however, there may not be enough Nextel EA licenses in channels 121-400 to accommodate all 1-120 block relocating EA licensees. In such cases, non-Nextel EA licensees unable to relocate to channels 121-400 would have two alternatives available to them: (1) remaining in their current spectrum in the 1-120 channel block, subject to consent of the

establish a relocation plan for incumbent licensees operating certain wide-area systems that span multiple NPSPAC regions; *i.e.,* incumbents operating across more than three states with more than 400 channels.[31] The Phase I Committee would then certify to the Commission the clearing plans for these licensees.[32]

Slotting first the relocations of EA and wide-area incumbent licensees will simplify the region-by-region relocation process by taking these more complex relocations "off the table" and clarifying destination channel availability; attempting to fit them in later could require substantial reworking of regional relocation plans. Accordingly, the Consensus Parties would identify first the channel swaps necessary for these incumbents to best facilitate the overall clearing of the 1-120 channel block. Non-Nextel 1-120 channel block EA licensee relocation costs, as well as those of the wide-area licensees, will be covered in the same manner as any other relocating 1-120 incumbent.

---

appropriate NPSPAC regional committee(s); or (2) relocating to channels in the cellularized spectrum. Where a non-Nextel EA licensee selects this second option and moves to the cellularized spectrum block, it would be given contiguous spectrum comparable to the existing "white space" on its current EA licensed frequencies and would be reassigned to the lowest channels available beginning with channel 401. The non-Nextel EA licensee would have rights to the same geographic area and amount of spectrum as it has under its current license.

[31] Specifically, this category includes 1-120 incumbents Entergy, American Electric Power, Motient and Southern LINC; the latter two are also EA licensees.

[32] The RCC would not, however, seek Commission approval of the plans; instead, the RCC would, upon completion of negotiations between Nextel and each channel 1- l20 incumbent as to timing and relocation costs, submit reciprocal assignment applications for each channel exchange necessary to complete Phase I relocations. These applications would be placed on 30-day Public Notice giving any parties with standing the opportunity to oppose any specific channel swap.

Second, within 120 days following the effective date of the Report and Order,[33] the Phase I Planning Committee would establish a detailed frequency plan setting forth post-relocation spectrum assignments for clearing the 1-120 channel block in each of the first 14 NPSPAC planning regions as prioritized by the RCC.[34] The RCC would certify to the Commission the Phase I clearing plans for each NPSPAC Region, as described above.

The RCC's certification of each Phase I regional plan to the FCC will begin a mandatory nine-month negotiation period between Nextel and channel 1-120 incumbents in the first 14 prioritized NPSPAC Regions. The Phase I Planning Committee will have established all replacement channel locations for moving the channel 1-120 incumbents to their new locations in the non-cellular block; accordingly, the only issues to be resolved during the mandatory negotiation periods will be the timing of individual Phase I licensee relocations within each NPSPAC region, the specific costs that will be incurred for relocation and either reimbursed or paid for directly by the 800 MHz realignment Fund Administrator from the relocation fund, and a specific relocation plan for each relocating licensee designed to prevent significant disruption of its operations, especially communications relating to the protection of life, health and property.

If an incumbent licensee and Nextel cannot complete a relocation agreement within the nine-month negotiation period, either party may initiate binding arbitration of unresolved cost

---

[33] In other words, the physical relocation of EA and wide-area incumbents does not have to commence or be completed prior to the Phase I Committee establishing detailed post-relocation spectrum assignments for the first 14 prioritized NPSPAC regions. The actual submission of assignment swap applications to the Commission and subsequent physical retuning of the 1-120 block EA and wide-area incumbents can take place at any time after the Phase I Committee certifies the detailed relocation plan, but no later than the deadlines discussed below for retuning the 1-120 channel block incumbents for the first 14 prioritized NPSPAC regions.

[34] *See* Appendix E.

and timing issues before an arbitration panel established by the RCC, which would choose between relocation proposals submitted by the two parties in a "baseball-type" arbitration process.[35] In "baseball-type" arbitration, each side submits its best proposal, and the arbitrator is required to either select one or the other; the arbitrator cannot "pick and choose" from among the competing proposals nor develop its own.[36] This approach has the advantage of incenting the parties to close the gap between their proposals as much as possible and thereby more likely avoid arbitration.

Once an incumbent licensee and Nextel reach agreement on these issues and execute a relocation agreement, the RCC will prepare the necessary license applications.[37] The Consensus Parties believe that the RCC should be allowed to file non-public safety applications directly with the Commission and, if necessary, be designated as a special frequency coordinator for that purpose. These non-public safety applications will be considered "pre-coordinated", since the

---

[35] The costs of the arbitration panel shall be paid by the RCC and/or reimbursed from the Relocation Fund.

[36] The Consensus Parties recognize that most public safety licensees are governmental agencies and may be subject to state, municipal or other laws or regulations limiting their participation in binding arbitration, such as the "baseball-type" arbitration proposed herein. In such cases, the parties should be directed (with the assistance of the non-Nextel members of the RCC) to undertake all best efforts to reconcile any unresolved cost and/or timing issues consistent with applicable state/local requirements, including non-binding arbitration subject to review and reversal by the Commission. This consideration would apply to governmental agency involvement in arbitration as it relates to any phase of the 800 MHz realignment process.

[37] The license applications would be prepared and filed as soon as the parties reach a relocation agreement; in no case, however, later than 13 months after the effective date of the Report and Order (nine months after certification of the relocation plans for Regions prioritized 1-14). These applications will request Commission approval of reciprocal assignments: each incumbent to the 121-400 channel block; Nextel from that block to the 1-120 channel block. When completed, Nextel would temporarily be the sole licensee of channels 1-120 in each NPSPAC Region until replaced by the current NPSPAC incumbents in Phase II of the realignment process.

relocations involved were previously "certified" to the Commission by the RCC; accordingly, approval of such applications would be presumed in the public interest. Applications involving *public safety incumbents*, on the other hand, will be filed by the RCC (or the relevant applicant) with a certified public safety frequency coordinator, which will complete a final review and submit the application to the Commission.[38] Final coordination by a certified public safety coordinator, notwithstanding the proposed RCC process, is necessary to provide an added level of assurance to public safety agencies that their new channel assignments will not lead to any reduction in coverage or increase in interference potential. To avoid delay, the Commission should require public safety coordinators to submit such applications to the Commission within seven days of their receipt by the public safety coordinator.

The Consensus Parties suggest that the Commission agree to use its best efforts to process and grant Phase I relocation applications within 60 days of filing.[39] Under the proposed timeframe, the physical retuning of all 1-120 channel block incumbents in Regions prioritized 1-14 should commence fifteen months from the effective date of the Report and Order (or sooner in some cases) and must be completed within six months of the Commission approval of the incumbent licensee's new channel assignment.[40] Once an incumbent relocates and vacates its existing channels, its license for those "existing" channels would be voluntarily cancelled.

---

[38] Public safety licensees constitute a small, but significant, minority of incumbents impacted by Phase I.

[39] A 60-day processing period leaves time for 30-days Public Notice and ample time for Commission consideration of any Petitions to Deny on the limited issues involved in each application.

[40] Although frequency plans will be developed by the RCC on a NPSPAC Region basis, the actual system relocations do not have to be coordinated by region, but can commence on a individual basis in different regions upon the timing agreed to by Nextel and the affected incumbent licensee.

To ensure that relocation proceeds as planned, the Consensus Plan provides for the Commission to cancel the license of any 1-120 channel block incumbent in NPSPAC regions prioritized 1-14 not executing a relocation agreement within 13 months of the Report and Order, unless the incumbent is involved in arbitration, or otherwise subject to a Commission administrative process (*i.e.,* a governmental licensee unable to engage in binding arbitration), as described above. The Plan also provides for the Commission to direct an incumbent that refuses to relocate within six months of its application grant to relocate within 30 days to its new, licensed replacement frequencies and to cancel the license of any prioritized Regions 1-14 incumbent not vacating its original frequencies and surrendering its license within 24 months of the Report and Order.

The process described above will also be used to relocate channel block 1-120 incumbents in NPSPAC Regions prioritized 15-55 in accordance with the following timeline. Within five days of the effective date of the Report and Order, the Commission would issue a Public Notice directing affected 1-120 channel block incumbents in NPSPAC regions prioritized 15-55 to file with it and the RCC a full description of their licensed systems, as set forth in Appendix C, no later than 45 days from the effective date of the Report and Order.[41] Within six months of the effective date of the Report and Order, the Phase I Committee would complete and certify to the Commission detailed frequency plans setting forth post-relocation channel assignments in the 121-400 channel block for clearing the 1-120 block incumbents in NPSPAC regions prioritized 15-55. A 13-month mandatory negotiation period would follow to complete relocation agreements between Nextel and the 1-120 incumbents; accordingly the RCC would

---

[41] This can be the same Public Notice used for prioritized NPSPAC Regions 1-14 or a separate notice.

file reciprocal assignment applications on behalf of the parties no later than 19 months from the Report and Order effective date. Assuming the Commission processes these applications within two months, physical retuning of the 1-120 incumbents in NPSPAC regions prioritized 15-55 would commence at the 21-month mark and be completed within 12 months thereafter (33 months from the Report and Order).

As discussed above, any B/ILT and high-site SMR incumbent licensee may choose to voluntarily relocate to the 900 MHz SMR channels currently licensed to Nextel. Any B/ILT or H-SMR licensee choosing to relocate to the 900 MHz spectrum currently licensed to Nextel would be required to inform the RCC of this election within 60 days of the Report and Order so that the RCC and its subcommittees can take those relocations into account in developing the various Phase I relocation plans. These replacement licenses could be applied for and granted by the Commission (after 30-day Public Notice) at any time during the Phase I realignment process on a first-come, first-served basis, but no later than the close of Phase I. In order words, incumbents electing the voluntary 900 MHz relocation option are free to physically relocate at any time during the Phase I process after the Commission grants their relocation application.

B/ILT and H-SMR incumbents electing to voluntarily relocate to 900 MHz would receive relocation compensation for the costs they would have incurred for relocating within 800 MHz in accordance with the costs established for comparable 800 MHz relocations involving the same equipment and system characteristics, less overhead charges; *i.e.*, they would not receive compensation for any identified additional costs involved in moving to 900 MHz. Voluntary 900 MHz relocates would receive 900 MHz replacement spectrum on a "2 for 1" basis: four 12.5 kHz channels at 900 MHz for each 25 kHz channel surrendered in the non-cellular block; however, the "2 for 1" channels would be deferred until no later than the six months after the completion

of the Phase II relocation process for each Region.[42] Relocatees would initially receive 900 MHz replacement channels during Phase I on a "1 for 1" basis with the bonus channels deferred as described above. Alternatively, a 900 MHz voluntary relocatee should have the option of electing to receive its "2 for 1" channel award all at once during Phase I by forgoing any relocation cost compensation.

Finally, upon adoption of a Report and Order in this proceeding, the Commission should announce a temporary freeze on applications for new B/ILT/SMR licenses on channels 121 – 400, other than those filed by Nextel and incumbent relocates, as described herein.[43] Public safety applications would continue to be accepted and processed for new assignments on the Public Safety Pool channels. The freeze should continue in each NPSPAC Region until the Commission has granted all incumbent relocation applications in the non-cellular block, or alternatively, for voluntary relocation to 900 MHz. A temporary freeze on third-party new license applications for these channels will prevent speculators from "grabbing up" the remaining "white space" on B/ILT pool channels solely to impede the relocation of channel 1-120 incumbents and potentially profit thereby. The public interest will be served by completing 800 MHz realignment as expeditiously as possible so as to mitigate CMRS – public safety interference and provide additional spectrum for public safety communications systems. A

---

[42] The delay in assigning the 2:1 bonus spectrum is temporarily necessary to ensure that Nextel has sufficient operating capacity to create the "green space" necessary to implement realignment.

[43] The application freeze would apply only to applications for new B/ILT/H-SMR licenses for "white space" on channels 121-400; it would not preclude applications for and continued processing of pending applications to complete channel swaps to clear the Upper-200 SMR EA-licensed channels, pursuant to Section 90.699 of the Commission's Rules or other transfer/assignment applications. In addition, site-modifications to existing licenses should also continue to be permitted provided that the modified transmitter sites' 22 dBu contour is wholly within the original site's 22 dBu contour (i.e., no white space is eliminated).

temporary application freeze, as described herein, will assist the Commission in achieving this goal.[44]

C. Phase II of the Realignment Framework: The Nextel-NPSPAC Exchange and Public Safety Relocation from the Guard Band

Under Phase II of the Realignment Framework, incumbent NPSPAC licensees currently at 821-824/866-869 MHz (channels 601-720) would be relocated to the new NPSPAC block at 806-809/851-854 MHz (channels 1-120), and Nextel would be relocated from its temporary spectrum at 806-809/821-824 MHz to the current NPSPAC block at 821-824/866-869 MHz, receiving a license covering this spectrum and geography. Incumbent NPSPAC licensee relocation would occur on a regional planning area basis: first in regions prioritized 1-14 and then in regions prioritized 15-55.

To facilitate Phase II planning and implementation for regions prioritized 1-14, the Commission should require all current NPSPAC channel incumbents in those regions to provide to the Commission and to the RCC a full description of their licensed systems, as more fully described in Appendix C, within 120 days of the effective date of the Report and Order in this proceeding. The Commission's Rules should provide for it to issue, 60 days after the Report and Order, a Public Notice directing current NPSPAC incumbents to provide the required information and directing the RCC to mail the Public Notice to all affected licensees on a delivery confirmed basis.

---

[44] The Commission would continue to process a variety of 800 MHz applications, including assignment applications, non-technical modifications and renewals. Further, once the relocation plan for a particular region has been certified and relocation applications (reciprocal assignment applications) granted, the Commission could lift the freeze since subsequent applications would have to conform to the realigned spectrum plan and incumbent licensing.

Within eight months of the effective date of the Report and Order, the 800 MHz Regional Planning Committee in each of NPSPAC regions prioritized 1-14 either would reconfirm the transfer of the current NPSPAC regional channel plan ("Regional Plan") to 806-809/851-854 MHz, or would complete and adopt any necessary or desired revisions to the plan ("Revised Regional Plan").[45] During this time, the RCC would establish a Phase II Planning Committee[46] to coordinate with each NPSPAC Regional Planning Committee and incumbent NPSPAC licensees to develop a regional migration plan for relocating (i) all incumbent NPSPAC licensees to 806-809/851-854 MHz and (ii) Nextel to 821-824/866-869 MHz (the "Regional Migration Plan").[47] The Phase II Committee, working with the NPSPAC Regional Planning Committees, would complete each Regional Migration Plan within 10 months of the effective date of the

---

[45] Phase II of this relocation framework requires a significant amount of work by the 55 NPSPAC Regional Planning Committees. The Consensus Parties agree that the Regional Planning Committees are eligible to recover certain reasonable operating costs incurred as the result of participating in the realignment framework. For example, the RCC could establish a grant program, funded from the Relocation Fund, to provide operating costs for the RPCs, similar to the funding program established by the National Public Safety Telecommunications Counsel for 700 MHz Band Regional Planning Committees.

[46] The Phase II Planning Committee shall be appointed by and responsible to the RCC, and will be composed of one RCC-member representing (1) a public safety frequency coordinator with 800 MHz frequency coordination and planning experience; (2) a representative from each of the NPSPAC Planning Regions for the purpose of evaluating that Region's plan (each representative would participate only for developing the relocation plan for the particular Region he/she represents); and (3) Nextel. In the event that no representative of the NPSPAC Planning Region is willing or able to serve on the Phase II Planning Committee, the other two members of the Phase II Planning Committee shall endeavor to select a mutually acceptable third member who is otherwise familiar with public safety communications in the relevant Region and is willing to serve in that capacity. Reasonable expenses incurred by the Phase II Planning Committee and its public safety members will be subject to reimbursement from the Relocation Fund.

[47] Once a revised Regional Plan is completed, the NPSPAC Regional Planning Committee ("RPC") should limit any subsequent amendments of their Regional Plans to the maximum extent possible pending completion of the NPSPAC relocation process to facilitate relocation planning and implementation.

Report and Order. The Phase II Planning Committee would certify each completed Regional Migration Plan to the Commission.

Certification of each Regional Migration Plan would trigger a nine-month mandatory negotiation period between Nextel and each Region prioritized 1-14 incumbent NPSPAC licensee concerning relocation timing, reimbursable costs and detailed procedures specific to each licensee to implement relocation without significant disruption to critical public safety communications services. If Nextel and an incumbent NPSPAC licensee cannot complete a relocation agreement within the first four months, they would be required to seek mediation assistance from the Regional Planning Committee.[48] If there were no agreement by the end of the nine months mandatory negotiation period, either party could initiate a baseball-type arbitration process, as described above.[49]

Once each NPSPAC incumbent licensee in regions prioritized 1-14 and Nextel have reached agreement on relocation timing and costs, the RCC will prepare and file on behalf of the affected licensees the necessary license applications with a certified public safety frequency coordinator, which would then process and file the applications with the Commission in the same manner as discussed above for channel 1-120 public safety incumbents. This would permit

---

[48] In the event an RPC does not desire to fulfill a mediation role, Nextel and the incumbent licensee would be required to submit to mediation by an Alternate Mediation Panel consisting of three members from among a list of knowledgeable Land Mobile Radio frequency experts compiled by the Phase II Committee. Nextel may select one member, the licensee one member; the third and presiding member would be selected by the RCC (with Nextel recused from participating in that selection). The reasonable costs of such mediation, whether by the RPC or an Alternate Mediation Panel, are eligible for reimbursement from the Relocation Fund.

[49] As explained in footnote 34 above, in those cases where a governmental agency is limited in participating in arbitration, the parties should be directed to undertake all best efforts to reconcile any unresolved cost and/or timing issues consistent with applicable state/local requirements, including non-binding arbitration subject to review and reversal by the Commission.

physical relocation of NPSPAC incumbents in regions prioritized 1-14 to commence at 24 months from the effective date of the Report and Order herein and be completed within nine months thereafter; *i.e.,* within 33 months of the Report and Order.

Any incumbent NPSPAC licensee in regions prioritized 1-14 not executing a relocation agreement within 19 months of the Report and Order or not vacating its original frequencies within 33 months of the Report and Order would be issued a new license for the replacement frequencies identified in the applicable Regional Migration Plan and would be given 30 days to relocate, combined with either (i) involuntary license cancellation or (ii) modification of its license to secondary status, unless the incumbent is involved in arbitration or, if a governmental licensee unable to engage in binding arbitration, engaged in a Commission administrative process in lieu of arbitration.[50]

Relocation of NPSPAC incumbents in regions prioritized 15-55 would proceed as described above in accordance with the following timeline:

(1) Nine months from the effective date of the Report and Order, the Commission would issue its Public Notice directing incumbents to provide detailed system information, as set forth in Appendix C, within 12 months of the Report and Order and directing the RCC to provide the Notice to affected licensees;

(2) Within 18 months, the Phase II Committee, with the assistance of the Regional Planning Committees for regions prioritized 15-55, would complete Regional Migration Plans for each licensee in each region and certify them to the Commission. The RPCs have up to 16 months to modify their existing regional plans prior to working with the Phase II Committee to develop their Regional Migration Plan;

(3) Certification would trigger a 13-month mandatory negotiation period between Nextel and individual licensees concerning relocation timing, cost support and specific

[50] The Consensus Parties recognize that there may be some rare circumstances when a public safety agencies completion of the relocation process may be impacted by circumstances well beyond their immediate control (i.e., Act of Nature or delays in equipment delivery). In such cases, public safety agencies would have an opportunity to seek a brief extension of the required period to complete relocations, but only after a sufficient showing of the specific facts and circumstances that caused the delay.

provisions to prevent significant disruption of public safety communications. Mediation assistance could be requested from the Regional Planning Committee at the six month mark; either party could elect "baseball" type arbitration at the eight month mark;

(4) At the end of the 13-month mandatory negotiation period (31 months from the Report and Order), the RCC would file the necessary assignment applications with the Commission. This would permit physical retuning to commence at 33 months and be completed within three and one-half years (42 months) of the effective date of the Report and Order for all incumbents on the old NPSPAC channels.

Any incumbent NPSPAC licensee in regions prioritized 15-55 not executing a relocation agreement within 31 months of the Report and Order or not vacating its original frequencies within 42 months of the Report and Order would be issued a new license for the replacement frequencies identified in the applicable Regional Migration Plan and would be given 30 days to relocate, combined with either (i) involuntary license cancellation or (ii) modification of its license to secondary status, unless the incumbent is involved in arbitration or, if a governmental licensee unable to engage in binding arbitration, engaged in a Commission administrative process in lieu of arbitration.[51]

Also in Phase II, incumbent public safety licensees currently licensed on channels in the proposed Guard Band (channels 321-400) would have the right to relocate to channels vacated by Nextel in the 121-320 interleaved block. These relocations would be carried out in conjunction with and completed by the end of the Phase II relocation period. Relocation of public safety Guard Band incumbents must be performed during the same period as NPSPAC relocation to minimize the disruption to incumbent public safety operations and to reduce the costs of realignment by reducing the number of times a public safety handset or radio must be

[51] *Id.*

reprogrammed.[52] Incumbent public safety Guard Band licensees that desire to relocate would have to inform the RCC of their intent to do so within 45 days of the effective date of the Report and Order so that the RCC can take these relocations into account in its planning for relocating 1-120 channel block incumbents into the 121-400 channel block.

As in the Phase I and Phase II processes, such relocations could be accomplished through 1:1 channel exchanges between these public safety incumbents and Nextel; *i.e.,* Nextel would swap its licenses in the 809-814/854-859 MHz band for the Guard Band assignments (which, of course, it ultimately will surrender in the Phase II process). Although these public safety Guard Band incumbents must notify the RCC of their intent to relocate within 45 days, the timelines governing their submission of system information, identification of replacement channels, mandatory negotiation with Nextel and physical returning will be those specified above for Phase II NPSPAC retuning depending on whether the licensee is located in regions prioritized 1-14 or regions prioritized 15-55.

A public safety Guard Band incumbent electing to relocate to the 121-320 channel block may at any time reverse its election and remain in the Guard Band, subject to the interference protection rules governing those channels, as set forth in Appendix F hereto. Any public safety

---

[52] The main issue requiring NPSPAC relocations and public safety Guard Band relocations to occur simultaneously is because NPSPAC licensed users are often capable of "roaming" to public safety systems using Guard Band channels, particularly in the event of an emergency. Were public safety Guard Band incumbents to be relocated within the 800 MHz band during Phase I, their own radios could be retuned with little difficulty. However, the "roamers" (which could be several thousand users) would also need their radios retuned so that they could still roam on the relocated public safety Guard Band channel system. Then, in Phase II those same NPSPAC licensees (the "roamers") would need their radios retuned a second time, creating disruption and increased costs to public safety. Notwithstanding the above, it may be desirable in some cases to relocate the public safety Guard Band channel licensees in conjunction with the Phase I 1-120 channel relocations, particularly where the Guard Band licensee also has 1-120 channels. The RCC will address these situations with the affected licensee on a case-by-case basis.

Guard Band incumbent that elects to relocate, but fails to execute a relocation agreement by the required date, or fails to vacate its original frequencies as required for the region in which it is located, would remain in the Guard Band and be subject to the Guard Band interference protection rules.

D. Nextel's use of the 900 MHz and 1.9 GHz bands

The Consensus Parties recognize that it is crucial that Nextel is able to operate at 900 MHz during the realignment implementation period. During the realignment transition, Nextel will lose access to a considerable portion of its licensed 800 MHz spectrum. Maintaining sufficient capacity in the 900 MHz band is essential to Nextel's ability to provide service to existing and new customers while clearing the "green space" needed to make realignment possible. [53]

Nextel holds numerous EA and individual site licenses throughout the Land Mobile Band – the new NPSPAC channels, the 809-816/854-861 MHz channels (channels 121-400) and the 816-821/861-865 MHz channels (channels 401-600). Any realignment plan inevitably involves and impacts Nextel and will significantly reduce its current 800 MHz spectrum capacity until realignment is complete. For example, to accommodate migrating old NPSPAC incumbents to the new NPSPAC channels, Nextel will have to phase out of its temporary exclusive position on the new NPSPAC channels as old NPSPAC incumbents begin relocating there. In some NPSPAC regions, the intensive use of these channels, the geographic proximity of licensees, and the restrictions on spectrum use necessary to minimize CMRS – public safety interference could

[53] Operating a CMRS system at 1.9 GHz will not solve this problem in time, given the need to clear incumbent Broadcast Auxiliary Service licensees from the 1990-1995 band and build new CMRS facilities. It is essential, however, that the clearing, the planning and initial construction of the 1.9 GHz band be able to commence concurrent with the Commission's Report and Order.

require Nextel to migrate off the majority of the 1-120 channel block before it can relocate to and make significant use of the old NPSPAC channels.[54]

The Consensus Parties recognize that Nextel will have to fully utilize its licensed facilities at 900 MHz and temporarily rely on dual-band operations for the capacity needed to avoid disruption of its service during Phase I and Phase II realignment, while at the same time accommodating 800 MHz B/ILT and high-site SMR incumbents that choose to voluntarily move to 900 MHz.[55] Nextel will, however, vacate all of its 900 MHz licenses within six months of completion of Phase II retuning.[56] Consistent with the Consensus Plan, Nextel's 900 MHz SMR spectrum would then become "white space" available for licensing by the Commission to B/ILT and high-site SMR eligibles.

The Consensus Plan also provides that Nextel's reassignment to replacement spectrum at 1910-1915/1990-1995 MHz must be effective with the adoption of the Report and Order herein. Due to continuing Broadcast Auxiliary Service ("BAS") use of the 1990-1995 MHz band, now allocated to the Mobile Satellite Service ("MSS"), Nextel would not be able to make immediate use of this replacement spectrum. The current relocation plan for BAS, adopted in the Commission's 2 GHz MSS proceeding, is a complex, gradual process that broadcasters have

---

[54] In other words, Nextel will have to manage its relocation from the new NPSPAC block to the old NPSPAC block in concert with the NPSPAC licensee relocation to minimize CMRS – public safety interference.

[55] As discussed previously, the Consensus Parties would permit any 800 MHz B/ILT or H-SMR licensee to elect, within 60 days of the release of the Report and Order herein, to relocate to Nextel's 900 MHz channels on a "2 for 1" bonus basis.

[56] As noted above, by this time, any B/ILT/H-SMR incumbents that voluntarily relocate to 900 MHz and elect the compensation option, will receive their 2:1 900 MHz channel bonus channel assignments.

criticized as imposing undue burdens and uncertainty on their BAS operations.[57] Nextel has committed to working with broadcasters to develop a revised BAS relocation plan.[58] Similarly, Nextel may be responsible for reimbursing UTAM for up to 25 percent of the costs of clearing former microwave licensees from the Unlicensed Personal Communications Service ("UPCS") spectrum (1910-1915 GHz) that would be reassigned to Nextel. Planning, contractual commitments, site acquisition and related activities must commence immediately for the initiation of Nextel service on the 1.9 GHz spectrum in view of Nextel's reduced spectrum position at both 800 MHz and 900 MHz.

V. BORDER REGION REALIGNMENT PLAN

The *NPRM* sought comment on "how any relocating plan would be implemented consistent with international agreements, in those areas of the United States that are adjacent to the Canadian and Mexican borders."[59] As noted in the *NPRM,* the specific frequencies allotted to the various 800 MHz band pools in the border areas are different from the rest of the country, and some 800 MHz frequency blocks in these areas are reserved for primary Canadian or Mexican use while others are reserved for primary use by the United States. The Consensus Plan states that the "existing proportionate U.S. land mobile radio channel allocations in the U.S. – Mexico and U.S. – Canada Border Areas, respectively, will be maintained" in realigning the 800

---

57 *See* Joint Comments of the Association for Maximum Service Television, Inc. ("MSTV") and the National Association of Broadcasters ("NAB"), ET Docket No. 00-258, at 5 (filed Oct. 22, 2001).

58 *See* Nextel May 6, 2002 Comments at 51.

59 *NPRM* at para. 33.

MHz band, and recognized "the need for a complete bandplan including a detailed spectrum re-alignment plan in the Mexican and Canadian border regions."[60]

Appendix G attached hereto provides such a realignment plan for the Canadian and Mexican border regions ("Border Region Realignment Plan"). This plan is based on the following principles: *First,* to address CMRS – public safety interference on existing licensees, realignment in the border regions should be consistent with the Consensus Plan's realignment of the 800 MHz band in the rest of the country to the greatest extent possible. *Second,* realignment in the border regions should comply with the international treaties between the respective countries.[61] *Third,* public safety spectrum must be reallocated as far away from CMRS operations as possible, and never above 861 MHz, in order that modifications to public safety equipment be consistent across the U.S. *Fourth,* realignment in the border regions must take into account actual existing spectrum usage, including intercategory sharing and secondary spectrum use by U.S. licensees on Canadian or Mexican primary channels in the spectrum-constrained border areas, so that no existing licensee suffers a net loss of spectrum. *Fifth,* regardless of current usage, the entire NPSPAC allocation in each border region should be relocated as it is already allocated, whether by contiguous block or interleaved with another country's spectrum allocation.

Consistent with these principles, the Border Region Realignment Plan details the proposed band realignments for the Canadian and Mexican border regions. These realignments would satisfy the principles described above and significantly resolve the potential for CMRS –

---

60 See August 7, 2002 Reply Comments of Consensus Parties at 16.

61 Renegotiating the treaties would, however, make possible optimal spectrum use by licensees and users on both sides of the respective borders. Accordingly, the Commission should pursue renegotiating these treaties, as described further below.

public safety interference in these areas. The proposed realignments in the border regions are generally consistent with the Consensus Plan for the rest of the U.S., creating a non-cellularized block in the lower portion of the 800 MHz Land Mobile Radio Band and a cellularized block in the upper portions. NPSPAC licensees are consequently relocated as far as possible from the operations of cellular licensees, without modifying existing international agreements. Border area licensees can use new public safety handset developments – made possible by the Consensus Plan realignment -- for the lower portion of the 800 MHz band without changes in their equipment. Incumbent B/ILT and high-site, high-power SMR licensees would need to be relocated from the lower portion of the 800 MHz band to make way for the new NPSPAC block, as would be the case for the rest of the U.S. under the Consensus Plan.[62] The Border Region Realignment Plan also addresses the various spectrum constraints and special circumstances existing in each of the border regions.

Consistent with the fourth principle described above, the Border Region Realignment Plan would grandfather the secondary use in the United States of Canadian and Mexican primary channels by U.S. licensees. A number of U.S. licensees, including public safety, private wireless and commercial providers,[63] make extensive use of such channels on a secondary basis, and

---

[62] While the Consensus Parties propose to relocate the NPSPAC block to the lowest portion of the 800 MHz band as it exists today, in a contiguous block in the Canadian Border Area, an alternative approach would be to interleave the NPSPAC allocations with existing public safety incumbent licensees who are already licensed in the lowest portion of the 800 MHz band, which would reduce disruption to existing public safety licensees and reduce the costs of relocating public safety licensees.

[63] For example, Boeing makes significant use of primary Canadian channels in Border Region 5 on the U.S. side of the U.S./Canadian border on a secondary basis to Canadian licensees. Consumers Energy is similarly a secondary licensee to Canadian primary use in Border Region 3. Nextel also holds numerous licenses for secondary use of Canadian and Mexican primary channels in the U.S.

under the proposed plan could continue their current operations on these channels, whether cellular or non-cellular, notwithstanding that they may be on channels that -- were they allocated for primary use in the United States – would be within the non-cellular channel block.[64] These operations have to date not caused significant interference to public safety systems in the border regions, and, in any event, are *secondary* to public safety and other primary users of the band in the U.S. and would be required to cease operations upon any incidence of interference.

Severe spectrum constraints exist in the border regions because significant portions of the 800 MHz Land Mobile Radio Band are licensed to Canada and Mexico rather than the U.S.[65] The Land Mobile Radio border area allocations stand in sharp contrast to the 870 – 895 MHz allocation for the Cellular Telecommunications Radio Service in which all of the channels are fully available to licensees on both sides of the respective borders. Grandfathering secondary licenses in the border regions will permit realignment of the 800 MHz band consistent with

---

[64] The Consensus Parties believe, however, that public safety use of secondary channels in the NPSPAC Regions should be relocated to alternative channels lower in the 800 MHz band so as to take advantage of eventual equipment changes and to reduce the possibility of interference from primary U.S. operators in the adjacent Cellular Block spectrum.

[65] The 800 MHz Land Mobile Band is split between channels allocated for U.S. primary use, and channels allocated for Canadian or Mexican primary use. No country has access to all 720 Land Mobile channels in its border regions; the channels are divided between the respective countries – not necessarily on an equal basis – and further divided in the U.S. among the Land Mobile Radio channel pools: public safety, business, industrial and land transportation and SMR. The treaties and related international agreements permit domestic licensees in the U.S. border regions, for example, to operate on channels allocated to Canadian use in a border area on a secondary, non-interfering basis even though the channels are not included in the U.S. channel allocation for that border area. Secondary use in the border regions is critical to overcoming the domestic spectrum shortage resulting from dividing a finite number of Land Mobile Radio channels between the border countries. Grandfathering current secondary use is, in turn, essential to assuring that 800 MHz realignment does not reduce the spectrum available to any border area incumbent licensee, as discussed further, above. The Commission should encourage, where technically feasible, additional 800 MHz land mobile services in the U.S. border areas using Canadian or Mexican primary channels on a secondary basis.

treaty obligations and without causing any licensee to suffer a net loss in its current spectrum use.[66]

VI. POLICIES AND PROCEDURES TO MITIGATE INTERFERENCE

As Nextel stated in its September 23 Comments, the Consensus Plan realignment in-and-of-itself will eliminate the vast majority of intermodulation interference experienced today by public safety communications systems in the 800 MHz band.[67] Realignment will effect a similar reduction in intermodulation interference to non-public safety noise-limited systems in the new non-cellular block, albeit a somewhat less but still very substantial intermodulation interference reduction for noise-limited systems in the new 800 MHz Guard Band.

The Consensus Parties recognize, however, that no band plan can eliminate entirely all possibility of interference under all circumstances.[68] Appendix F sets forth the Consensus Parties' proposed policies and procedures to address interference in a post-realignment environment. In addition to continued co-channel interference protection for all licensees, the Consensus Parties propose new standards for limiting out-of-band emission ("OOBE") and intermodulation interference to licensees in the post-realignment non-cellular channel block from the Cellular Block and Cellular operators. Appendix F also contains proposed procedures and requirements for all parties to cooperate in identifying the sources of interference experienced by noise-limited systems in the non-cellular channel block, as well as recommended prospective equipment and system design standards to further minimize the conditions that give rise to CMRS – public safety interference.

---

[67] Nextel's September 23, 2002 Comments at pages 21-24.

[68] September 23, 2002 Consensus Parties Comments at page 6.

Part 90 of the Commission's Rules was initially designed for licensing private radio systems for businesses, public safety communications systems and SMR systems typically operating a single high-site, high-power base station serving up to 100 mobile units or more over a fairly large area.[69] The Commission's primary concern was to license such systems with sufficient geographic co-channel separation to prevent co-channel interference. As a general rule, the Commission licensed co-channel systems a minimum of 70 miles apart;[70] it provided, however, no specific adjacent channel or other technical interference protection requirements to Part 90 licensees.[71] The Commission relied on its certified frequency coordinators and co-channel separation requirements to prevent interference among Part 90 licensees;[72] if interference nonetheless occurred, the Commission's Rules required the affected licensees to cooperate and resolve the problem by mutually satisfactory arrangements.[73]

---

[69] The reliable service area of these single site systems typically extended for a radius of 20 miles from the base station, although in practice service often extended further. However, in its initial efforts at proving flexibility to licensees, the Commission permitted the introduction of all technologies consistent with the co-channel distance separation rules.

[70] See Inquiry Relative to the Future Use of the Frequejhncy Band 806-960 MHz; and Amendment of Parts 2, 18, 21, 73, 74, 89, 91, and 93 of the Rules Relative to Operations in the Land Mobile Service Between 806 and 960 MHz, Docket No. 18262, Second report And Order, 46 FCC 2d 752, 775 (1974), *reconsidered*, *Memorandum Opinion and Order*, 51 FCC FCC 2d 945 (1975).

[71] *Id.* at pages 772-773.

[72] Frequency coordination requirements for Part 90 licensees are contained in Section 90.175 of the Commission's Rules.

[73] *See* Section 90.173(b) of the Rules. The Commission has traditionally applied a policy of "last-in fixes it" for individual cases of interference when both licensees are in compliance with the Commission's Rules; it has not, however, codified this practice. Moreover, the *NPRM* in this proceeding recognizes that such practices are inadequate to resolve the unpredicted spectrum allocation conflicts that are the basis of the CMRS – public safety interference problem at 800 MHz.

With the development of cellular-type low-power, low-site frequency reuse enhanced SMR systems at 800 MHz, the Commission codified its co-channel short-spacing licensing policies to permit by rule a co-channel separation of as little as 55 miles in recognition of the inherent interference-limited design of such systems;[74] it did not, however, adopt additional interference standards or requirements for intermodulation and/or adjacent channel interference.

The Consensus Parties recommend that the Commission adopt for the first time additional post-realignment interference protection standards for Land Mobile Radio licensees that go beyond co-channel interference protections. These standards are detailed in Appendix F; a general outline is provided herein. The Commission's co-channel separation requirements would remain in place after realignment. In addition, non-cellular licensees would be protected from recurring OOBE or intermodulation interference from licensees in the new cellularized block (816-824/861-869 MHz), the Cellular A and B block licensees, or any combination of the above, provided that the non-cellular licensee's base station to mobile transmissions in the affected area have a signal strength of –98 dBm or better if it is an existing system, and a signal strength of –95 dBm or better in the case of new or replacement systems, in either case with receivers meeting TIA Class A specifications.[75] Non-cellular licensees in the new Guard Band, 814-816/859-861 MHz, would receive the same interference protection for existing systems and new systems as specified above, with the thresholds for protection increasing on a linear basis

---

74 *See* Section 90.621 of the Rules.

75 These interference protection thresholds will be based on a coverage probability of 95 percent, unless the system in question was designed to a greater coverage probability level. Procedures for measuring signal strength in the area of purported interference and statistical assessments of reliability will be developed through consensus by an industry working group as part of a Revised Best Practices Guide for Mitigating CMRS – Public Safety Interference. The Consensus Parties recommend that the Commission direct the formation of this working group and charge it with producing as revised Best Practices Guide, as detailed in Appendix F.

from –98 / -95 dBm as indicated above at 859 MHz by an additional 6 dB for both thresholds at 859.5 MHz, and by an additional 33 dB for both thresholds at 860.5 to 861.0 MHz.

Thus, if a licensee in the non-cellular channel block is operating as set forth above and still experiences CMRS – public safety interference at a certain location, the cellular carriers creating the interference would be required to take such actions as are necessary to eliminate it. If, on the other hand, the non-cellular channel block licensee's system is less robust than the above-specified signal strength parameters in the area of interference, the non-cellular licensee would have to first improve its signal strength before the cellular carriers would be required to undertake any corrective actions. If the non-cellular carrier meets or exceeds the required signal strength and interference persists, the cellular operators would be required to eliminate it through modifications to their operations, either individually or jointly, as may be necessary in each case.[76]

A base-to-mobile signal strength of –98 dBm represents a transmission only slightly higher than the minimum necessary for successful voice communications; weaker signals are typically not reliable in real world applications. Thus, the Consensus Parties propose an interference standard for existing noise limited systems that should protect the majority of reasonably well-designed non-cellular licensees from the remaining post-realignment possibility

[76] Appendix F contains procedures for notifying cellular carriers of interference and sets forth the responsibilities of both cellular and non-cellular carriers to work together to identify the sources of interference and the cause or causes thereof. If a public safety communications operator reasonably believes, based on generally accepted engineering analysis, that it is experiencing CMRS – public safety interference at a specific location or locations, all potentially interfering CMRS licensees within 5,000 feet of the interference area will be required to work with the public safety operator to determine the causes of such interference. If the interference is caused by intermodulation from the combined transmissions of co-located or near co-located CMRS licensees, the Commission's rules would require all involved CMRS licensees to cooperate jointly to eliminate it.

of intermodulation interference due to cellularized operations above 861 MHz. New and replacement systems would be required to demonstrate a somewhat more robust base-to-mobile signal strength to warrant such protection, in recognition of the operating and design opportunities for non-cellular systems made possible by realignment.

In addition, the Consensus Parties would require all cellular licensees in the 861-895 MHz band to suppress OOBE noise by no less than 43 + 10 log (P) dBc, where P is average transmitter power in watts, at the edges of the spectrum allocations, and further reduce OOBE noise by no less than 35 dB on all frequencies greater than 2 MHz outside the spectral allocation. Enhanced CMRS OOBE filtering will be possible as a result of the Consensus Plan's de-interleaving of different land mobile services into contiguous channel blocks, and will essentially eliminate the potential for OOBE noise to adversely affect receivers in the non-cellular block.

Finally, the Consensus Parties recommend that the Commission encourage equipment manufacturers serving the non-cellular 800 MHz services to take advantage of the spectral segregation of cellular and non-cellular operations in future RF hardware and system designs. The separation of cellular low site and non-cellular high site systems, combined with the consolidation of public safety channels in a contiguous block, offers manufacturers new options for preventing undesired adjacent or proximate RF transmissions from creating on-channel intermodulation products in public safety receivers.[77] Taking advantage of these opportunities will further minimize the probability of interference to non-cellular systems below

[77] The Consensus Parties explicitly clarify that it is not their intent to drive public safety systems to implement interference-limited system architectures. To the contrary, the Consensus Parties intend the non-cellular block to be "safe harbor" for the continued use of noise-limited systems by public safety and private radio licensees. The interference protection standards proposed herein balance the interests of all parties and provide specific guidance for system design parameters entitled to enhanced interference protection.

861 MHz from CMRS operations above 861 MHz and thereby enable all 800 MHz operators to more efficiently and effectively use their spectrum to advance the public interest.

VII. RELOCATION OF SOUTHERN LINC

In its September 23 comments, Nextel responded to concerns from Southern LINC that the Consensus Plan or any other 800 MHz realignment proposal would fail to accommodate its mixed high-site and low-site SMR system.[78] Nextel stated that the Commission could "grandfather" Southern LINC systems operating in the Consensus Plan's non-cellularized spectrum at 809-816/854-861 MHz within 25 miles from the center points of Atlanta and Birmingham, the two largest cities in Southern's operational territory. As a result, for licensed facilities within those 25-mile radii, Southern LINC would be exempt from Consensus Plan waiver procedures applicable to all other entities wishing to maintain or deploy cellularized low-site, low-power systems in non-cellularized spectrum.

The Consensus Parties now propose that the Commission take a further step to remove any concerns Southern LINC may have regarding the Consensus Plan. The Commission should grandfather *all* Southern LINC systems operating at 809-821/854-866 MHz within Southern LINC's entire licensed footprint in Alabama, Georgia, Mississippi, and Florida. Thus, within the non-cellularized 809-816/854-861 MHz band, Southern LINC would be able to *both* maintain its existing cellularized low-site, low-power sites and establish additional low-height sites without having to seek a waiver to do so,[79] provided that it does not cause interference to

---

[78] See Nextel's September 23, 2002 Comments on Consensus Plan at pages 8-10.

[79] The Consensus Plan provides that non-cellular band licensees desiring to deploy future cellular-like technologies would first have to obtain a waiver of the Commission's prohibition on cellular-type system architecture in the non-cellular spectrum block. To obtain a waiver, a licensee in the non-cellularized band would have to demonstrate that its proposed cellularized system would not contravene the underlying purpose of the non-cellular prohibition for this

public safety operators and other non-cellular systems in the non-cellular block. While Southern LINC, like all other incumbents, would have to relocate out of the new NPSPAC spectrum at 806-809/851-854 MHz, once relocated, it would have the flexibility to convert any high-site systems to cellularized operations in the non-cellularized spectrum without having to seek a waiver. Thus, the only impact of realignment on Southern LINC would be relocating its channels in the new NPSPAC band (channels 1-120) to replacement channels in the 809-816/854-861 MHz block (channels 121-400) -- like any other incumbent -- and Southern LINC would be eligible to receive reimbursement for relocating these channels.[80]

Southern LINC would be required to notify all affected licensees before implementing new cellularized, low-site operations and engage in pre-coordination to prevent interference to

---

block; *i.e.,* that it would not cause interference to public safety operators and other non-cellular systems in the 800 MHz band, and that these operations would otherwise be in the public interest. *See* Consensus Parties Comments on Consensus Plan, at 4-5; Consensus Parties Reply Comments at n. 41. This can primarily be demonstrated by the applicant agreeing to be bound by the interference protection criteria discussed in Appendix F. In essence, the Consensus Parties concur with Southern LINC having a *de facto* blanket waiver for low-power, cellular-type deployment within its existing service area and its existing channel assignments (once it relocates from channels 1- 120), as detailed further below.

[80] The Consensus Parties recommend that Southern's existing assignments in channels 1-120 be relocated to the Guard Band in the non-cellular block as close as possible to channel 401 – the first cellular block channel – to provide maximum separation between Southern's potentially low-site base stations and the public safety channels. Relocating existing Southern assignments in the 121-400 block to the upper portion of the block may also be beneficial in reducing potential interference with public safety licensees; accordingly, the RCC will coordinate with Southern to evaluate the benefits of these additional channel relocations on a market-by-market basis. In addition, the record herein is not definitive as to whether the principle of relocation being spectrum neutral to each relocated licensee requires that Southern receive contiguous replacement channels. Accordingly, the Consensus Parties recommend that the RCC have the flexibility to identify relocation channels for Southern consistent with the overall objectives of the realignment process.

non-cellular licensees.[81] Southern LINC would be responsible for resolving immediately any harmful interference to non-cellular systems that may occur as the result of such operations. Since Southern LINC has claimed that it will have no adverse impact on neighboring licensees, accepting such conditions should not be problematic.[82] With this approach, the Commission would ensure that Southern LINC will retain full capacity and functionality under the Consensus Plan consistent with its stated position in this proceeding.[83]

VIII. CONCLUSION

With these Supplemental Comments, the Consensus Parties now fill in the remaining blanks in the Consensus Plan, and address virtually all of the outstanding issues raised by the Commission in the *NPRM* and by other parties during the course of this proceeding. The broadly-supported Consensus Plan - enjoying the support of over 90 percent of the Land Mobile

---

[81] Given the serious threat that interference presents to life-safety communications, any waiver applicant must demonstrate conclusively that its cellular-type deployment will not recreate interference problems for public safety communications systems, including pre-construction coordination with public safety frequency coordinators and licensees in the affected area. A waiver recipient would have a strict obligation to eliminate interference to public safety incumbents should it occur.

[82] See Southern's September 23, 2002 Comments at page 12 ("[T]he Commission . . . should allow Southern and other licensees to remain in their current spectrum homes. . . Southern's entire system must be grandfathered such that it can continue to utilize, develop, and grow its cellularized system.

[83] Southern LINC September 23, 2002 Comments on Consensus Plan, at 12. The Consensus Parties believe that Southern LINC's situation *vis-à-vis* realignment present unique circumstances. Southern is the second largest iDEN operator in the nation with a combination of high-site and low-site architecture appropriate to a largely rural service area containing a limited number of highly urbanized areas where low-site, low-power cellular-type are warranted. Southern's smaller regional service area, and the population/service demand characteristics thereof, present a substantially lower probability of multiple instances of CMRS – public safety interference than is presented by a nationwide iDEN cellular-type network. Accordingly, Southern should be able to effectively limit and manage interference through pre-coordination in its service area. This approach resolves Southern's concerns expressed in this proceeding without undercutting the purpose of the overall realignment.

Radio licensees affected by public safety interference - represents the only proposal that can achieve the Commission's goals of improving public safety communications at 800 MHz with minimal disruption to existing licensees, while making available additional near-term 800 MHz spectrum for public safety communications services. Accordingly, Consensus Parties respectfully request that the Commission expeditiously adopt the Consensus Plan for realigning the 800 MHz band as modified and enhanced herein.

Respectfully submitted,

AERONAUTICAL RADIO, INC. (ARINC)
2551 Riva Road
Annapolis, Maryland 21401-7465
410-266-4386

/s/ Kris E. Hutchison
Kris E. Hutchison
Senior Director, Frequency Management

AMERICAN MOBILE TELECOMMUNICATIONS ASSOCIATION, INC. (AMTA)
200 North Glebe Road, Suite 1000
Arlington, VA 22203
202-835-7814

/s/ Alan Shark
Alan Shark
President and CEO

AMERICAN PETROLEUM INSTITUTE (API)
c/o Keller & Heckman, LLP
1001 G Street, NW, Suite 500 West
Washington, DC 20001
202-434-4293

/s/ Nicole B. Donath
Nicole B. Donath
Its Counsel

ASSOCIATION OF PUBLIC-SAFETY COMMUNICATIONS OFFICIALS-INTERNATIONAL, INC. (APCO)
351 North Williamson Boulevard
Daytona Beach, FL 32114
904-322-2501

/s/ Thera Bradshaw
Thera Bradshaw
President

FOREST INDUSTRIES TELECOMMUNICATIONS
871 Country Club Road, Suite A
Eugene, OR 97401
541-485-8441

/s/ Kenton E. Sturdevant
Kenton E. Sturdevant
Executive Vice President

INDUSTRIAL TELECOMMUNICATIONS ASSOCIATION, INC. (ITA)
1110 North Glebe Road, Suite 500
Arlington, Virginia 22201-5720
703-528-5115

/s/ Laura L. Smith
Laura L. Smith
President/CEO

INTERNATIONAL ASSOCIATION OF CHIEFS OF POLICE (IACP)
515 N. Washington Street
Alexandria, VA 22314-2357
703-836-6767

/s/ William B. Berger
William B. Berger
President

INTERNATIONAL ASSOCIATION OF FIRE CHIEFS (IAFC) AND
INTERNATIONAL MUNICIPAL SIGNAL ASSOCIATION (IMSA)
c/o Keller and Heckman LLP
1001 G Street, NW, Suite 500 W
Washington, DC 20001
202-434-4144

/s/ Martin W. Bercovici
Martin W. Bercovici
Their Attorney

MAJOR CITIES CHIEFS ASSOCIATION (MCC)
c/o Las Vegas Metro Police Department
400 Stewart Avenue
Las Vegas, NV 89101
702-229-3231

/s/ Jerry Keller
Jerry Keller
President

MAJOR COUNTY SHERIFFS' ASSOCIATION (MCSA)
c/o Orange County Sheriff's Office
2400 West 33rd Street
Orlando, FL 32839
407-836-3701

/s/ Kevin E. Beary
Kevin E. Beary
President

NATIONAL SHERIFFS' ASSOCIATION (NSA)
1450 Duke Street
Alexandria, VA 22314-3490
703-836-7827

/s/ Tommy Ferrell
Tommy Ferrell
President

NATIONAL STONE, SAND & GRAVEL ASSOCIATION
2101 WILSON BOULEVARD
Arlington, Virginia 22201
703-525-8788

/s/ Jennifer Joy Wilson
Jennifer Joy Wilson
President and CEO

NEXTEL COMMUNICATIONS, INC.
2001 Edmund Halley Drive
Reston, Virginia 20191
703-433-4141

/s/ Robert S. Foosaner
Robert S. Foosaner
Senior Vice President and
Chief Regulatory Officer

PERSONAL COMMUNICATIONS INDUSTRY ASSOCIATION (PCIA)
500 Montgomery Street
Suite 700
Alexandria, VA 22314-1561
703-739-0300

/s/ Jay Kitchen
Jay Kitchen
President and CEO

TAXICAB, LIMOUSINE, AND PARATRANSIT ASSOCIATION (TLPA)
3849 Farragut Avenue
Kensington, MD 20895
301-946-5701

/s/ Alfred LaGasse
Alfred LaGasse
Executive Vice President

December 24, 2002

Appendix A

800 MHz Realignment Cost Support

800 MHz Realignment Cost Support

Background

An important element of the Consensus Plan for 800 MHz realignment is determining, to a reasonable certainty, the costs of retuning 800 MHz incumbent B/ILT, high-site SMR ("H-SMR") and public safety licensees from their current channel assignments to their new 800 MHz assignments consistent with the Consensus Plan. This Appendix discusses the work undertaken and completed by the Consensus Parties to arrive at reliable retuning cost estimates for relocating: (1) B/ILT and H-SMR incumbents; and (2) NPSPAC, non-NPSPAC and combined NPSPAC/non-NPSPAC incumbent public safety licensees.

The Consensus Parties used a number of sources to carry out this cost assessment. First, the public safety organizations and Nextel have amassed a detailed understanding of the different design concepts, operational methodologies, and equipment attributes of various public safety communications systems in the course of numerous interference mitigation efforts over the past two years. Second, as the predominant EA licensee in the upper-200 SMR channels, Nextel has retuned nearly 1,000 incumbent 800 MHz licensees out of the upper-200 channels to alternate 800 MHz channel assignments. These retuned incumbents include commercial operators, public safety communications systems, private land mobile licensees, and communications systems licensed to and relied upon by major public utilities. Thus, Nextel has extensive experience in not only relocating 800 MHz licensees generally, but in successfully relocating licensees that cannot tolerate significant disruption or downtime. Third, Nextel and representatives of the public safety organizations visited 16 public safety systems throughout the country. These 16 systems were selected to provide a reasonably representative sample of different public safety operating environments and requirements, such as large metropolitan systems, smaller city systems, systems using only non-NPSPAC channels, NPSPAC-only channels, or a combination of both,[1] as well as systems that include current channel assignments in the new 800 MHz Guard Band that would, in all likelihood, choose to relocate out of the Guard Band.

Process

With the assistance of the public safety organizations and private wireless organizations, Nextel took the following steps to estimate the cost of retuning 800 MHz incumbent private wireless and public safety communications systems:

1) Carried out a thorough review of the FCC's 800 MHz licensing database to establish an accurate baseline count of all 800 MHz licensees.

[1] While the 16 licensees represent a variety of different public safety operators, this sample is biased somewhat toward large, complex public safety communications systems. Reliance on this information likely results in an overstatement of the number of total mobile units that must be retuned as well as the proportion of the total public safety licensee universe involving large, metropolitan areas.

2) Supplemented the FCC's database with third-party public safety and private wireless licensing data sources.

3) Developed basic categories of the different types of B/ILT, H-SMR and public safety communications systems based on the FCC database and third-party information sources, as well as the experience of the Consensus Parties' in responding to CMRS – public safety interference complaints, and developed cost estimates for all activities necessary to successfully retune affected 800 MHz incumbents.

4) Tested and validated these categorizations and cost estimates for public safety licensees through field visits to and meetings with 16 representative public safety operators.

5) Tested, validated and refined its categorizations and cost estimates for private wireless and H-SMR licensees against Nextel's extensive experience in relocating these type of licensees out of the upper-200 SMR channels.

6) Further refined its public safety conclusions through public safety licensee responses to an APCO data collection survey designed to solicit additional information concerning system architectures, operating requirements and active mobile units counts on public safety communications systems.

The information developed in this process may be the most complete and comprehensive compilation of information ever assembled concerning the universe of 800 MHz public safety licensees; it also provides a complete and accurate picture of the retuning required of B/ILT and H-SMR licensees to effectuate the Consensus Plan. The result is an estimate of the total number of incumbent licensees that must relocate within the 800 MHz band under the Consensus Plan and the steps necessary to relocate them. For example, Nextel has identified 316 licensees holding 660 call signs in channels 1-120 that must retune to clear that band for relocating current NPSPAC licensees. For public safety, 1,137 total incumbent NPSPAC and incumbent public safety 800 MHz licensees currently operating in the 800 MHz Guard band (859-861 MHz) will have to relocate under the Consensus Plan.

Based on this information, Nextel identified representative categories of public safety licensees and developed retuning cost estimates for incumbents in each category. The data that follows provides a cost range for specific retuning elements reflecting the actual experience of public safety licensees, as well as Nextel's experience in retuning upper-200 incumbent private wireless and H-SMRs licensees across the country. Some of the major cost items are as follows:

1) Labor to physically retune repeaters and mobile/portable radios.

2) Critical elements necessary to modify certain types of Motorola systems.

3) Additional or improved combiners[2] to allow for tighter channel spacing within a given system.

4) Replacement of radios that cannot be retuned.

5) Loaner equipment to allow for necessary system redundancy during some of the more complex retunes.[3]

The Consensus Parties recognize that the retuning costs for any particular licensee may vary both above and below the cost range estimates contained herein for a variety of reasons; accordingly while these ranges establish neither a ceiling nor a floor on the costs eligible for reimbursement in a specific case, they reasonably reflect realistic cost requirements for the majority of incumbents retuning under the Consensus Plan.[4] Nextel also accounted for the fact that Public Safety radio systems tend to be much more complex than the typical commercial or business analog two-way radio system Nextel retuned from the upper-200 SMR channels. *In any case, to assure that its funding commitment is adequate, Nextel used the high end of the cost range for each relocation activity or element in developing its total commitment for funding the retuning of both public safety and private wireless/H-SMR systems.*

In addition, from this information, and using the average number of active mobile units operating on incumbent systems, Nextel generated an average per system end-user radio (mobile unit) count for both public safety and B/ILT, H-SMR systems. Among the public safety licensees Nextel visited, the average number of users programmed onto a channel exceeded 150 units. In a commercial system, loading in excess of 100 users per channel is likely to create system congestion. Because of the 24-hour nature of public safety operations, however, all users are not on the system simultaneously – so more users can be accommodated. Additionally, many users are not primary users of the system – they can include units from neighboring jurisdictions

---

[2] A combiner is a device that allows multiple frequencies to be transmitted from a single antenna. It is difficult for a combiner to keep channels that are close together (e.g. 853.0125 MHz and 853.0375 MHz) from operating without interfering with each other. One of the reasons that the FCC created interleaved spectrum in the first place was to allow for a licensee to operate on channels with at least 1 MHz separation from each other. Advances in technology allow newer-generation combiners to accept channels that are much closer together.

[3] Many operators initially assumed that in order to retune their system, a duplicate or redundant system (the most expensive solution) would have to be constructed. After further discussion, a number of operators believed that continuous, reliable communications can be maintained without constructing a parallel, interim duplicate system. Nextel has included in its costs an allowance for cases requiring duplicate interim construction; it believes, however, that this will not be necessary in a large number of retuning efforts.

[4] Because of cost efficiencies, we expect that for systems with a very large number of mobile and portable units, the per-radio retune cost, for example, will come in below the specified range.

(for joint operations) and from ancillary government departments (such as public works) who, on occasion, must have communications with public safety personnel.

To be conservative, Nextel used this loading level in calculating the number of mobile units on public safety systems that must be retuned under the Consensus Plan; we believe, however, that our total represents the high-end of reality. Most of the operators we interviewed were in more populous, urban environments. We know that operators in areas with a lower population density will have fewer users per channel. Nextel also assumed that all licensees are currently constructed and operating systems that would have to be physically retuned. In reality, a significant number of public safety licenses have not yet been constructed, or are in the process of being constructed; each of these represents an opportunity to initially construct on the licensee's post-realignment channels, thereby avoiding or minimizing the need to retune these systems at all. As a result, Nextel's estimate of the number of active mobile units that must be retuned is likely overstated, providing additional cushion in its retuning commitment.

Based on all of the above, Nextel estimates that a total of 2.6 million mobile units must be retuned under the Consensus Plan. As discussed above, Nextel believes this is the high end of reality. Information recently submitted by public safety licensees indicates that the total number of public safety mobiles may be 2.1 million – an average of 136 mobiles units per public safety channel. Nextel continues to use the higher count to provide additional security that its commitment is adequate.[5]

Nextel estimates that 5% of the Business/Industrial/SMR radios will have to be replaced during realignment and that approximately 1% of the public safety radios will have to be replaced.[6]

The following pages provide the basic estimates and analysis that support Nextel's funding commitment.

---

[5] Significantly, Motorola estimates that approximately 1.8 million mobile units are in use in incumbent 800 MHz public safety systems. Motorola's estimate is based on sales for the past 10 years adjusted to reflect market share. Motorola's estimate gives additional comfort that Nextel has not undercounted the number of mobile units that must be retuned.

[6] Our research has shown that public safety users tend to upgrade end-user radios more frequently than Business/Industrial/SMR operators. Because the public safety radios are newer, a lower percentage cannot be retuned and must be replaced. These are predominately older radios in use today on NPSPAC channels that cannot easily be retuned to operate in the new NPSPAC block, channels 1-120.

Realignment Cost Summary for General Business (GB), Industrial Land Transportation (ILT) & Specialized Mobile Radio (SMR)

Cost Estimate for Relocating Incumbent Licensees from
Channel block 1-120 to Channel block 121-400

Total Cost	**$129.6m**

Cost Summary to Retune B/ILT, H-SMR incumbents from Channels 1-120 To Channels 121-400

Total

Total Licensee		1058					
Total Call Signs		3102					
Total Frequencies		7460					
Total Sites by Licensee		3123					
Overall Assumptions:		All Channels are constructed and loaded					
		Assume EA winners have not constructed additional sites that would effect cost					
		Consulting Fees/Licensee (Eng., Legal, etc.)			Range $5000 to $7500		
		Coordination Fees, per frequency			$250		
		FCC Fees, per Call Sign			$50		
Summary of Cost by Category							
		Conventional			$8,019,700		
		SMR			$18,010,500		
		YO/YB			$71,850,000		
		Four Largest Utilities			$21,547,150		
		Coordination Fees			$1,865,000		
		FCC Fees			$155,100		
		Consulting Fees			$7,935,000		
		Total to Retune			$129,382,450		

Public Safety Realignment Cost Analysis

Public Safety Realignment Cost Summary

Public Safety (1-120) 851.0125-853.9875	$ 54.4m
Public Safety (NPSPAC & Guard Band) NPSPAC – (866.0125-868.9875) Guard Band – (859.0125-860.9875)	$644.2m
Total Cost	**$698.6m**

Public Safety System Categories

Public Safety Realignment from channels 1-120 (851.0125 – 853.9875),
to channels 121-320 (854.0125 – 858.9875)

"**Conventional Systems**" are those that include only channels licensed for conventional use; they are not part of a trunked system.

"Voice-Channel Retune Systems" are those in which the control channels do not have to be retuned under the Consensus Plan for 800 MHz Realignment; only the voice channels must be retuned. These systems **do not** require all user radios to be reprogrammed.

"Control-Channel Retune Systems" as defined in this section, are those in which the control channels must be retuned. For these systems, relocation requires all user radios to be retuned.

Public Safety 1-120 Cost Summary
851.0125 – 853.9875

Licensees:	203	61	52	316
Call Signs:	253	144	263	660
1-120 Freq's:	349	585	2082	3016
Discrete Sites by Licensee:	330	325	447	1102

Infrastructure Retune	Conventional Systems	Voice-Channel Systems	Control-Channel Systems	Total
Retune Repeaters & Other Site Work	$990,000	$1,462,500	$8,940,000	$11,392,500
Replace Repeaters	$840,000	$72,000	$1,248,000	$2,160,000
Replace Channel Elements	$21,000	$1,800	$6,300	$29,100
Replace Combiners	$203,000	$160,000	$220,000	$583,000
System Planning & Engineering	$0	$122,000	$156,000	$278,000
Replace Code Plugs	$0	$390,000	$536,400	$926,400
Duplicate Systems	$0	$0	$20,000,000	$20,000,000
Console Replacement	$0	$0	$375,000	$375,000
1-120 System Retune Cost	$2,054,000	$2,208,300	$31,481,700	$35,744,000

Radio Retune	Conventional Systems	Voice-Channel Systems	Control-Channel Systems	Total
Discrete Frequencies by Licensee	291	782	359	1,432
Radios/Freq (Range 136 to 167)	167	167	167	
Radios	48,597	130,594	59,953	239,144
Retunes/Radio	1	1	2	
Retunes	48,597	130,594	119,906	299,097
Cost / Retune Range $30 to $50	$30 to $50	$30 to $50	$30 to $50	
1-120 Radio Retune Cost	$2,429,850	$6,529,700	$5,995,300	$14,954,850

Replacement Radios cost captured in Guard Band & NPSPAC Model

Other Retune Costs	Conventional Systems	Voice-Channel Systems	Control-Channel Systems	Total
Coordination Fees / Freq	$190	$190	$190	
Frequencies	349	585	2082	
Coordination Fees	$66,310	$111,150	$395,580	$573,040
Consulting Fees / Licensee	$5000 to $10000	$5000 to $10000	$5000 to $10000	
Licensees	203	61	52	
Consulting Fees	$2,030,000	$610,000	$520,000	$3,160,000
Other Retune Cost	$2,096,310	$721,150	$915,580	$3,733,040

TOTAL PS 1 - 120 Retune Costs	$6,580,160	$9,459,150	$38,392,580	$54,431,890

Public Safety System Categories for Public Safety moving NPSPAC (866.0125 – 868.9875) to channels 1-120 (851.0125 – 853.9875)

AND

Public Safety moving Guard Band (859.0125 – 860.9875) to channels 121-320 (854.0125 – 858.9875)

Conventional & Mutual Aid use frequencies licensed for use in conventional systems, not part of a trunked system.

Single Site/Single Site with Back-up is a trunked system with one primary site and possibly a back-up site

Simulcast is a single system with multiple sites using the same frequencies.

MultiSite Systems are systems that cover a wide geographical area and have independent frequency sets.

Very Large Systems are generally State Wide Systems

Public Safety Cost Summary for Relocating Public Safety Guard Band and NPSPAC Incumbents

Number of PS Licensees	1137	
Call Signs	5033	
Gross Frequencies	52305	
Discrete Sites by Licensee	8295	
Summary of Cost		
Conventional & Mutual Aid		$11,413,800
Single Site w/Backup		$18,066,000
Simulcast		$56,096,900
MultiSite Systems		$28,992,050
Very Large Systems		$170,420,000
Total for System Retune		$284,988,750
Total Number of PS Radios (145% of Motorola Estimate)		2,599,355
(167 radios per discrete frequency)		
Replacement Radios (1% @ $3000 each)		$77,980,650
Retune all Radios, 2x ($50/Retune) *		$259,935,500
Coordination Fees ($190/freq)		$9,937,950
Consulting Fees ($10,000 per Licensee)		$11,370,000
Total System, Retune, Coordination, FCC, Legal		**$644,212,850**
Grand Total to ReBand PS		**$644,212,850**
(Guard Band and NPSPAC)		
* The $50 reprogramming fee is based upon information provided		
by public safety entities during discussions with the Consensus Parties.		

Summary To retune Conventional Systems & Mutual Aid	
# of Systems	464
# of Licensees	261
# Of Gross Frequencies	597
# Of Conventional Sites	3
# of Mutual Aid Frequencies (repeaters)	2730
# of Mutual Aid Sites	1127
Grand Total For Conventional Systems & Mutual Aid:	**$11,413,800**

Summary To retune Single Site-SS w Backup	
# of Systems	388
# of Backup Systems	108
# of Licensees	388
# Of Gross Frequencies	3160
# Of Sites	496
# of voting sites	194
Grand Total For Single Site-SS w Backup	**$18,066,000**

Summary To Retune Simulcast Systems	
# of Systems	213
# of Remote Sites	1627
# of Licensees	213
# Of Gross Frequencies	15470
# Of Sites	1840
# of Voting sites (based on remote sites)	1627
Grand Total For Simulcast Systems	**$56,096,900**

Summary To Retune Multi-Site Systems	
# of Systems	1109
# of Licensees	207
# Of Gross Frequencies	7688
# Of Sites	1109
# of voting sites	887
Grand Total For Multi-Site Systems	**$28,992,050**

Summary To Retune Very Large Systems	
# of Systems	68
# of Licensees	68
# Of Gross Frequencies	22660
# Of Sites	3259
# of voting sites	2607
Grand Total For Very Large Systems	**$170,420,000**

Total Estimate To Retune Public Safety Licensees from NPSPAC & Guard Band to the Lower 120 Channels	**$284,988,750**

Assumptions & Cost Figures

Conventional Systems & Mutual Aid	Range if Applicable
No voting system	
Mutual Aid	
Cost To Retune a Mutual Aid frequency (repeater)	$1500-$3000
Conventional Systems	
% of repeaters to be replaced	15%-20%
cost for site work per frequency (Includes engineering & design work)	$1500-$3000
Cost per new repeater	$8000-$12000
# of Console stations per Licensee	0
Cost to retune each Console Station	$1000-$2000
Single Site or Single Site with backup:	
If Agency has 1 site, they do not have a backup system	
Agency will not do without their backup site during retuning	
cost for site work - per site(Includes engineering & design work)	$9000-$15000
# of times site will need to be retuned	1
% of sites utilizing voting sites	20%-50%
Cost to retune a voting site	$3000-$5000
Cost per new repeater	$8000-$12000
# of Console stations Per Licensee	8-10
Cost to retune each Console Station	$1000-$2000
Multi System:	
Each site is a discreet system	
No backup sites	
% of repeaters to be replaced	3%-5%
cost for site work (Includes engineering & design work)	$9000-$15000
# of times sites need to be retuned	1
% of sites utilizing voting sites	50%-80%
Cost to retune a voting site	$3000-$5000
Cost per new repeater	$8000-$12000
# of Console stations per licensee	8-10
Cost to retune each Console Station	$1000-$2000

Simulcast:	
1 control site per licensee, all other sites are remote	
Each unit is in out of service for at least 1 shift per day.	
40% of systems will need a parallel system	
Purchase enough replacement equipment to cover 3 regions at a time	
Assume each region has 3 simulcast systems, this will cover the largest	
total number of systems	213
% needing a parallel system	20%-40%
cost 9 parallel systems	10,000,000-$15,000,00
% of repeaters to be replaced	1%
cost for site work (Includes engineering & design work) Prime site	$15,000-$20,000
cost for site work (Includes engineering & design work) remote sites	$10,000-$15,000
# of times sites need to be retuned	1
Cost to reprogram each end unit	$0
% of sites utilizing voting sites (based on remote sites)	20%-50%
Cost to retune a voting site	$3000-$5000
Cost per new repeater	$8000-$12000
Cost per new radio	$0
# of Consoles stations per Licensee	10-15
Cost to retune each Console Station	$1000-$2000
Very Large Systems	
All radios are retunable	
Every system will need replacement system	
Purchase enough replacement equipment to cover 2 regions at a time	
each region has (on average) 1 very large systems	
Each Licensee has 1 system	
Because of different stages for different regions, some equipment can be used	
from the 1-120 retuning	
Radios per Site	0
Cost of Duplicate Systems (2 Systems)	25,000,000-$40,000,00
Cost per frequency to retune	$50,000-$60,000
Cost To Retune backbone at each site (Includes delivery of Replacement system)	$20,000-$30,000
(Includes engineering & design work)	
% of sites utilizing voting sites	50%-80%
Cost to retune a voting site	$3000-$5000
# of Consoles stations for every 5 sites	10-15
Cost to retune each Console Station	$1000-$2000

Information obtained from Public Safety Agencies during consultation visits

PUBLIC SAFETY TECHNICAL RETUNE MEETINGS

Agency	System Type	Channels	Channels	NPSPAC	Date
		1- 120	320 - 400		
Major West Coast Airport	3 Motorola Conventional	Yes	Yes		10/3 9 A
Arizona City System	Motorola 1 Site		Yes		10/8 9 A
Midwest-County System	Motorola 13 Sites	Yes	Yes	Yes	10/1 1:30 P
Southern California County Syst	Motorola 7 Site Simulcast	Yes	Yes	Yes	10/3 8:30 A
Nevada City System	Motorola 3 Site Simulcast		Yes	Yes	10/10 8:30 A
Southwest Statewide System	Motorola 4 Site Simulcast		Yes		10/1 8:30 A
Southern California County Syst	Motorola Multi-Site	Yes (Border)	Yes (Border)	Yes	10/9 9 A
Eastern Seaboard City System	Motorola 2 Site Simulcast	Yes	Yes		10/3 10 A
Major Florida City System	Motorola w/ Backup Site	Yes	Yes		10/8 9 A
Western Florida County System	EDAC 2 Site	Yes	Yes		10/9 1:30 P
Florida County System	Motorola Multi-Site		Yes	Yes	10/10 11 A
East Coast City Transit System	Motorola 4 Site Simulcast		Yes		10/15 10 A
Eastern Seaboard City System	EDAC w/ Backup Site	Yes	Yes		10/9 Noon
NY State County System	Motorola 8 Site Simulcast		Yes	Yes	10/2 9 A
Mid Atlantic County System	Motorola 8 Site Simulcast		Yes		10/1 1:30 P
Midwest-County System	EDAC 7 Site Simulcast			Yes	10/11 9 A

APPENDIX B

CROSS-REFERENCE OF 800 MHZ SPECTRUM RANGES

AND

CHANNEL NUMBERS

APPENDIX B

Cross-Reference of 800 MHz Spectrum Ranges and Channel Numbers

Name	800 MHz Spectrum	800 MHz Channels
Current NPSPAC Block	821-824/866-869 MHz	601 - 720*
New NPSPAC Block (Also known as the General Category Pool)	806-809/851-854 MHz	1 - 120
Non-Cellular Block	806-816/851-861 MHz	1 - 400
Interleaved Channels	809-814/854-859 MHz	121 - 320
800 MHz Guard Band	814-816/859-861 MHz	321 - 400
Cellular Block (Includes "Upper-200 SMR" Economic Area Licenses in Channels 401 - 600)	816-824/861-869 MHz	401 - 720

* Channel numbers in 25 MHz equivalent bandwidths

APPENDIX C

800 MHZ REALIGNMENT DRAFT RULE FRAMEWORK

800 MHZ REALIGNMENT DRAFT RULE FRAMEWORK

I. General

A. Definitions. As used throughout this Order, the following terms shall be defined as follows:

1. Cellular Block: The current 800 MHz block from 861-869 MHz, paired 816-824 MHz, shall be reclassified for use only by low-site digital cellular-type CMRS systems (the "Cellular Block"). Except for existing Upper-200 Economic Area ("Upper-200 EA") Licensees, Licensees under all other service classifications shall be relocated from the Cellular Block to comparable facilities within the 800 MHz band under this Order.

2. Current NPSPAC Block: Included within the Cellular Block is the current public safety radio allocation at 866-869 MHz, paired with 821-824 MHz (the "Current NPSPAC Block").

3. Non-Cellular Block: The 800 MHz block, currently authorized for several different services from 851-861 MHz, paired 806-816 MHz, shall be reclassified for use only by high-site, high-power wide-area systems (the "Non-Cellular Block"). Pursuant to FCC rule waiver, high-site, high-power systems may convert their operations to Cellular-use, as that term is defined in the text of the First Report and Order, but will be subject to certain restrictions in order to prevent interference to other licensed operations in the Non-Cellular Block.

4. New NPSPAC Block: Included within the Non-Cellular Block is the designated relocation spectrum for the NPSPAC Block, which shall be reclassified for public safety radio use at 851-854 MHz, paired with 806-809 MHz (the "New NPSPAC Block"). Licensees under all service classifications shall be relocated from the New NPSPAC Block to comparable facilities within the 800 MHz band or to other spectrum under this Order to accommodate relocation of the Current NPSPAC Block.

5. Guard Band: Included within the Non-Cellular Block at 859-861 MHz, paired with 814-816 MHz, is the designated primary relocation spectrum for Business, Industrial/Land Transportation and high-site SMR licensees (the "Guard Band"). Station operation in the Guard Band will be limited to high-site, wide-area systems for all radio services, except that low-power "campus" systems covering small, discrete geographic areas are expressly encouraged because their operations are less likely to cause or experience interference to or from other licensees in the 800 MHz band. Current public safety licensees in the Guard Band are eligible for relocation to the portions of the Non-Cellular Block outside of the New NPSPAC Block, but relocation is voluntary for these licensees. Public safety licensees electing to remain in the Guard Band are deemed to accept certain interference from licensees in the Cellular Block lawfully operating within the parameters of their licenses, as set forth in this Order.

6. 900 MHz Replacement Block: Spectrum in the 900 MHz band authorized for wide-area SMR operations and licensed to Nextel Communications, Inc., or its subsidiaries and affiliates (collectively, "Nextel"), shall be made available for Business and Industrial/Land Transportation and Specialized Mobile Radio ("SMR") incumbent licensees in the New NPSPAC Block, Non-Cellular Block and Cellular Block on a voluntary basis (the "900 MHz Replacement Block"). Incumbent licensees electing to relocate to the 900 MHz Replacement Block will receive replacement spectrum on a "2 for 1" basis, i.e., the licensee will receive four (4) 12.5 kHz channels in the 900 MHz Replacement Block for each 25 kHz channel surrendered in the New NPSPAC Block, Non-Cellular Block and/or Cellular Block.

B. Comparable Facilities. Incumbent licensees subject to mandatory relocation under this Order (and those licensees electing to voluntarily relocate to 900 MHz) shall be entitled to be relocation to "comparable facilities" as defined in this Order. Except where noted herein, all direct expenses arising from relocation shall be paid or reimbursed by the Relocation Fund (as defined, *infra.*) The determination of whether facilities are comparable shall be made from the perspective of the end user, as determined through four factors − System, Capacity, Quality of Service, and Operating Costs.

1. System. To meet the comparable facilities requirement, an incumbent licensee must be provided with a comparable system, as defined functionally from the end user's point of view, i.e., a system is comprised of base station facilities that operate on an integrated basis to provide service to a common end user, and all mobile units associated with those base stations. This definition can include multiple-licensed facilities that share a common switch or are otherwise operated as a unitary system, provided that an end user has the ability to access all such facilities. A "system" also may cover more than one EA or NPSPAC planning region if its existing geographic coverage extends beyond those borders. In general, reprogramming of the system should be completed in a manner that avoids substantial disruption to the greatest extent possible. On the end-user side, eligible reprogramming costs shall cover all "units in service", defined as any fully operational unit (i) currently programmed to operate on the system, and (ii) which has generated airtime use or system/airtime revenue for the system operator within the previous 12-month period. Total unit count for Public Safety systems shall include all operational units currently programmed to operate on the system. In addition, retuning should be completed without significant disruption to the users of the system. Replacement frequencies designated in accordance with the procedures set forth in this Order are hereby deemed to be "comparable" for the purposes of this Order. Because (i) replacement frequencies are known to be comparable to existing frequencies; (ii) it is anticipated most systems will be reprogrammed within the 800 MHz band, rather than replaced; and (iii) the Commission and the industry have substantial positive experience gained through the 800 MHz Upper-200 relocations under WT Docket No. 93-144, there shall be no requirement to "build and test" a new

replacement system before an incumbent licensee shall be required to relocate under this Order; this provision shall also extend to incumbent licensees voluntarily electing to relocate to the 900 MHz Replacement Block. As described in Section A.6. above, incumbent licensees electing to relocate to the 900 MHz Replacement Block will only be eligible for compensation in the amount which would have been spent to retune such licensee's current system within the 800 MHz band only under certain elections.

2. Capacity. A comparable system must have at least the same channel capacity, defined as the same number of channels with the same bandwidth that is currently available to the end user. For example, if an incumbent's system consists of five 50 kHz (two 25 kHz paired frequencies) channels the replacement system must also have five 50 kHz channels. If a different channel configuration is used, it must have the same overall capacity as the original configuration, specifically, four 25 kHz (two 12.5 kHz paired frequencies) 900 MHz channels are comparable to two 50 kHz (two 25 kHz paired frequencies) 800 MHz channels, even if the 900 MHz channels are not adjacent and do not provide 25 kHz of contiguous spectrum. In addition, the geographic coverage of 800 or 900 MHz replacement channels must be coextensive with that of the original system, but replacement channels meeting the "quality of service" factors shall be presumed by a rebuttable presumption to provide coextensive coverage. Replacement channels need not have the same channel spacing as current frequencies, as long as the relocation plan meets the test of comparable facilities herein, and the incumbent licensee is compensated (if eligible) for the cost of additional antenna and/or combiner changes required to make system operate effectively with the new channel spacing.

3. Quality of Service. In order for a replacement system to be comparable, the end user must perceive substantially similar quality of service. Replacement 800 MHz or 900 MHz frequencies provided to an incumbent licensee are deemed to provide a comparable quality of service for the purposes of this Order if the replacement frequencies meet the following criteria: (1) provide at least the same quantity of spectrum; (2) are licenses at the same licensed coordinates as incumbent's current license, with the same or substantially similar effective radiated power (ERP), elevation, antenna height and height above average terrain (HAAT); and (3) provide co-channel protection equal to the lesser of: (i) the co-channel protection required under FCC Rule § 90.621; or (ii) incumbent licensee's current co-channel protection, if less than provided for under § 90.621 due to consensual short-spacing, failure to gain exclusivity through adequate loading, or other historic factors. Public safety licensees relocated from the New NPSPAC Block and the Guard Band to channels 121-320 within the Non-Cellular Block shall only be entitled to the co-channel protection granted under § 90.621. Incumbent licensees in the Current NPSPAC Block are also provided the same mandatory minimum protection under § 90.621 of the FCC Rules, and this protection under the rules shall be extended to the New NPSPAC Block. The Commission

acknowledges that NPSPAC regional plans have sometimes been developed to provide co-channel separation to licensees in excess of their entitlement under FCC Rules, and nothing in this Order shall prevent NPSPAC Regional Planning Committees from continuing this practice in the New NPSPAC Block should they choose to do so in license planning and coordination.

4. Operating Costs. A comparable system must not increase operating costs for the licensee. "Operating Costs" shall be defined as costs that affect the delivery of services to the end user. If the facilities provided entail higher operating costs than the incumbent's currently configured system, those costs shall be subject to reimbursement under this section. Increased Operating Costs may take the form of increased recurring costs (additional rent payments, higher utility fees) and/or increased maintenance costs. Any increased Operating Costs directly attributable to system relocation under this Order shall be reimbursable for two years from the closing date of a voluntary relocation agreement.

5. Filing Fees; Applications. The Commission shall use its best efforts to act upon all applications filed pursuant to relocations under this Order within 60 days of receipt, and shall act on all applications for Special Temporary Authority within 15 days of receipt. The Commission hereby deems all such applications are in the public interest by a rebuttable presumption and therefore should be granted expeditiously unless challenged by a party with standing to do so. All Incumbent Licensees must ensure their TIN, password, ULS registration and tower registration (if applicable) are current within forty-five (45) days following the effective date of this Order, and may be subject to FCC audit and possible administrative action. All filing fees shall be waived for applications pursuant to this Order; waiver is in the public interest because licensees are being required to relocate systems under this Order to solve interference issues caused by the Commission's current licensing scheme.

C. Provision of System Information. In order to protect the public and provide for improved public safety communications and to complete the relocation of incumbent licensees set forth in this Order, it is imperative that all parties involved have accurate information about the system to be relocated in order to properly determine the costs and logistics of the relocation. Therefore, the requirements for providing information placed on incumbent licensees throughout these rules are being made pursuant to the Commission's broad authority to compel FCC licensees to provide necessary, relevant factual information to the Commission under penalty of perjury.[1] Any information provided by incumbent

[1] 47 U.S.C. §308(b) allows the Commission to request "further written statements of fact" from licensees; 47 C.F.R. §1.17 gives the Commission power to request from any licensee written statements of fact relevant to any matter within its jurisdiction; 47 C.F.R. §90.439 requires that station records – including information on station operations and loading – be made available for inspection upon reasonable request of the Commission.

licensees to any third-party for the purpose of completing the system relocations contemplated by this Order shall not be used by any third-party for any other purpose, including, specifically, any unrelated marketing or commercial purposes. The specific Commission request to provide accurate system information under penalty of perjury, and the Commission's distribution of such information to specific, identified third-parties acting pursuant to this Order to assist the Commission in carrying out the relocations contemplated hereby, is within the scope of the FCC's administrative authority under the Communications Act, which states, "The Commission may perform any and all acts, make such rules and regulations, and issue such orders, not inconsistent with this Act, as may be necessary in the execution of its functions." Without being required to make specific showing, licensees shall receive confidential treatment for this information by the Commission, and the Commission shall require any third-parties receiving such information for the purposes of relocation to agree to keep such information in confidence; and to use such information strictly for the purposes intended, and not for any other commercial use.

D. Relocation Fund. Nextel shall provide up to $850 million to facilitate the relocations contemplated herein (the "Relocation Fund"). The Relocation Fund shall be administered by an Administrator (either a natural person or corporate entity) who shall have a fiduciary duty to maintain the Relocation Fund in accordance with the rules set forth in this Order.

E. Relocation Coordination Committee. In order to facilitate the system relocations contemplated under this agreement, certain powers shall be delegated to a committee composed of four representatives appointed by the Land Mobile Communications Council ("LMCC") and one from Nextel (the "Relocation Coordination Committee", or "RCC"). The RCC shall be responsible for frequency coordination, dispute resolution and licensing application responsibilities during the 800 MHz realignment process. The LMCC shall appoint two representatives from its public safety membership and two representatives from its private wireless membership to serve on the RCC. For the purposes of carrying out their delegated responsibilities under this Order, the members of the RCC may elect to organize in corporate form and devolve such responsibilities to the new entity. The RCC on its own account, and all member entities of the RCC, shall execute Confidentiality Agreements with the Commission. The RCC shall be responsible for the appointment and compensation of the Relocation Fund administrator selected by a super-majority of the RCC members including the approval of Nextel, but shall only be able to remove the Administrator for cause during his term in office. All relocation cost reimbursement claims by licensees pursuant to any negotiated agreements between the affected parties under this Order shall be submitted by the incumbent licensee to the RCC, which shall be responsible for the review and approval of all relocation cost reimbursement claims to ensure consistency with the provisions of this Order. The RCC shall then approve the reimbursement request and direct the Relocation Fund Administrator to release the appropriate funds to the Incumbent Licensee or its designee.

In order to facilitate the realignment efforts, the RCC shall establish two working committees within 30 days following the effective date of this Order. The Phase I Planning Committee shall consist of one representative, appointed by the constituent organization, from each of (i) an FCC authorized public safety coordinators in the RCC: (ii) an FCC authorized private land mobile coordinator in the RCC; and Nextel. The Phase II Planning Committee shall consist of one representative, appointed by the constituent organization, from each of (i) an FCC authorized public safety coordinator in the RCC; (ii) the NPSPAC Representative (as defined below); and (iii) Nextel. The RCC, in consultation with the NPSPAC Regional Planning committees and APCO, shall select one representative to the RCC from each of the 55 NPSPAC planning regions (the "NPSPAC Representatives"). Each NPSPAC Representative shall occupy the designated seat on the Phase II Planning Committee with respect to consideration of matters within his or her respective NPSPAC planning region.

F. Local, State and Federal Governmental Cooperation. The Commission recognizes that the completion of the system relocations contemplated herein will in some cases necessitate the construction of additional transmitter sites and/or the modification of existing transmission towers. The Commission finds these actions are in the public interest to mitigate current harmful interference to life-safety radio communications in the 800 MHz band. As such, the Commission strongly urges local governments to treat zoning applications filed as a result of this Order in the public interest, and to take all actions within their lawful power to expedite the review and approval of such applications.

II. Phase I: Relocation of Incumbent Licensees From The New NPSPAC Block

A. General. The mandatory relocation of all Incumbent Licensees from the New NPSPAC Block shall be completed within thirty-three (33) months following the effective date of this Order ("Phase I Completion Date"). The complete relocation of all incumbent licensees (including public safety, business, industrial/land transportation and high-site SMR) prior to commencement of NPSPAC channel relocation is in the public interest because: (i) the NPSPAC regional planning process is preserved; (ii) the separation of radio services will mitigate harmful interference; and (iii) the first priority for Relocation Funds should be ensuring clear replacement spectrum for NPSPAC licensees.

B. Exchange of Information. Because providing information is critical to carrying out the relocation process for all licensees, the FCC shall require incumbent licensees to provide the following information listed below ("System Information") to the RCC and FCC for use by third-parties in performing relocation of the subject facilities within forty-five (45) days of the effective date of this Order. This information shall only be distributed by the RCC to third-parties subject to Confidentiality Agreements and who have a need to know such information for the purposes of negotiating relocation agreements and completing the system relocations contemplated herein. Licensees shall cooperate in the provision of the required information and shall make themselves available to the

RCC to explain or elaborate upon any submissions. The FCC shall issue a Public Notice to announce the commencement of the applicable time period for providing the listed information and the RCC shall ensure that impacted licensees are provided notice of the required information submittal process via certified mail, return receipt requested, or other proof of delivery.

1. For Public Safety Licensees the following information shall be provided:

a. General Information:

- Agency name
- Date of submission
- Designated Relocation contact, with all contact information (including mailing address, phone number, fax number, and e-mail address)
- Number and Location of Dispatch Centers

b. Voice System Information (this information must be provided for each independently operating system):

- System manufacturer and type
- Total number of transmitter sites
- For each site:
    - Site name
    - FAA Tower Registration Number
    - Presence of existing building and tower space to accommodate possible duplicate system elements during relocation
    - Call sign(s) and frequencies in operation at the site
    - System type (Single-Site, Simulcast, Back-up, Voted, etc.)
    - If Simulcast, how is this site linked to the other sites?
    - Repeaters:
        - Quantity
        - For Each:
            - Manufacturer
            - Type/Model #:
            - Output (watts)
    - Receive Antennas:
        - Quantity
        - For Each:
            - Manufacturer
            - Type/Model #
            - Voted Receiver? (If yes, please provide detailed description)
    - Transmit Antennas:
        - Quantity
        - For Each:
            - Manufacturer

        - Type/Model #
    - Combiners:
        - Quantity
        - For each:
            - Manufacturer
            - Type/Model #
            - # of cavities
            - Frequencies used
    - Controller type
    - Controller model #
    - Control/home channels
    - Control channel rotation scheme (if applicable)
    - Failsoft channels (Frequency and number of units programmed on each frequency) (if applicable)
    - Other companies or agencies with units capable of operating on this site/system (using this site/system as secondary)
        - organization name
        - Number of other companies/agencies units programmed for site
    - Any other information not specifically requested above which may affect the cost or logistics of retuning for this site on this site (accessibility, power supply, co-tenants, etc.)
- Transmission type (Analog, Digital, or Both)
- System Interconnect Design (if any)
- Total number of programmed units for your agency use (primary on this site/system), divided into active units and spare units:
    - Manufacturer
    - Model number
    - Unit type (portable or mobile)
- Radio assignment method (i.e., by officer, by vehicle, or to shift on duty, number of hours per day each radio is in use)
- Total number of programmed units owned or controlled by other agencies which use this site/system as primary
    - Agency name
    - Radio Manufacturer
    - radio Model number
    - Unit type (portable or mobile)
- Other radio systems programmed into your agency radios for cross-system operation
    - Agency/ies operating other system(s)
    - System type
    - Quantity of units programmed for operating on the other system

c. <u>Data System Information (this information must be provided for each independently operating system)</u>:

- General System Description, including coverage and main users of system
- System manufacturer and type
- Total number of transmitter sites
- For each site:
    - Site name
    - FAA Tower Registration Number
    - Presence of excess building and tower space to accommodate possible duplicate system elements during relocation
    - Call sign(s) and frequencies in operation at the site
    - System type (Single-Site, Simulcast, Back-up, Voted, etc.)
    - If Simulcast, how is this site linked to the other sites?
    - Repeaters:
        - Quantity
        - For Each:
            - Manufacturer
            - Type/Model #:
            - Output (watts)
    - Receive Antennas:
        - Quantity
        - For Each:
            - Manufacturer
            - Type/Model #
            - Voted Receiver? (If yes, please provide detailed description)
    - Transmit Antennas:
        - Quantity
        - For Each:
            - Manufacturer
            - Type/Model #
    - Combiners:
        - Quantity
        - For each:
            - Manufacturer
            - Type/Model #
            - # of cavities
            - Frequencies used
    - Controller type
    - Controller model #
    - Control/home channels
    - Control channel rotation scheme (if applicable)
    - Other companies or agencies with units capable of operating on this site
        - organization name
        - Number of units programmed for site
        - Connection type to other organization's console, if any

- Any other information not specifically requested above which may affect the cost or logistics of retuning for this site on this site (accessibility, power supply, co-tenants, etc.)

- Total number of programmed mobile data terminals (MDTs), divided into active units and spare units (your agency)
  - Manufacturer
  - Model number

d. Console Information:

- Quantity of console stations

e. Mutual Aid Information: (If agency owns and maintains any mutual aid system or channels on its licensed frequencies)

- For each site:
  - Site name
  - FAA Tower Registration Number
  - Presence of excess building and tower space to accommodate possible duplicate system elements during relocation
  - Call sign(s) and frequencies in operation at the site
  - Repeaters:
    - Quantity
    - For Each:
      - Manufacturer
      - Type/Model #:
      - Output (watts)
  - Receive Antennas:
    - Quantity
    - For Each:
      - Manufacturer
      - Type/Model #
      - Voted Receiver? (If yes, please provide detailed description)
  - Transmit Antennas:
    - Quantity
    - For Each:
      - Manufacturer
      - Type/Model #
  - Combiners:
    - Quantity
    - For each:
      - Manufacturer
      - Type/Model #
      - # of cavities
      - Frequencies used

- Any other information not specifically requested above which may affect the cost or logistics of retuning for this site on this site (accessibility, power supply, co-tenants, etc.)

f. Any additional information not listed above about any aspect of the system(s) for which information is being provided that is critical to planning the costs and logistics of system relocation, including any funded near-term upgrade plans.

2. For Business and Industrial/Land Transportation Licensees the following information shall be provided:

a. General Information:

- Company name
- Date of submission
- Designated Relocation contact, with all contact information (including mailing address, phone number, fax number, and e-mail address)

b. Voice System Information (this information must be provided for each independently operating system):

- System manufacturer and type
- Total number of transmitter sites
- For each site:
  - Site name
  - FAA Tower Registration Number
  - Presence of existing building and tower space to accommodate possible duplicate system elements during relocation
  - Call sign(s) and frequencies in operation at the site
  - System type (Single-Site, Simulcast, Back-up, Voted, etc.)
  - If Simulcast, how is this site linked to the other sites?
  - Repeaters:
    - Quantity
    - For Each:
      - Manufacturer
      - Type/Model #:
      - Output (watts)
  - Receive Antennas:
    - Quantity
    - For Each:
      - Manufacturer
      - Type/Model #
      - Voted Receiver? (If yes, please provide detailed description)
  - Transmit Antennas:

        - Quantity
        - For Each:
            - Manufacturer
            - Type/Model #
    - Combiners:
        - Quantity
        - For each:
            - Manufacturer
            - Type/Model #
            - # of cavities
            - Frequencies used
    - Controller type
    - Controller model #
    - Control/home channels
    - Control channel rotation scheme (if applicable)
    - Failsoft channels (Frequency and number of units programmed on each frequency) (if applicable)
    - Are other companies or agencies with radios capable of operating on this system
        - How many Companies/Agencies
        - Total number of units
    - Any other information not specifically requested above which may affect the cost or logistics of retuning for this site on this site (accessibility, power supply, co-tenants, etc.)
- Transmission type (Analog, Digital, or Both)
- System interconnect design (if any)
- Total number of programmed units for company use, divided into active units and spare units:
    - Manufacturer
    - Model number
    - Unit type (portable, mobile or base station)
- Radio assignment method (i.e., by employee, by vehicle, or to shift on duty, number of hours per day each radio is in use)
- Total number of programmed units owned or controlled by other organizations:
    - Manufacturer
    - Model number
    - Unit type (portable or mobile)
- Other radio systems programmed into company radios for cross-system operation
    - Organizations operating other system(s)
    - System type
    - Quantity of subject company's units programmed for operating on the other system

c. Data System Information (this information must be provided for each independently operating system):

- General system description, including coverage and main users of system
- System manufacturer and type
- Total number of transmitter sites
- For each site:
    - Site name
    - FAA Tower Registration Number
    - Presence of excess building and tower space to accommodate possible duplicate system elements during relocation
    - Call sign(s) and frequencies in operation at the site
    - System type (Single-Site, Simulcast, Back-up, Voted, etc.)
    - If Simulcast, how is this site linked to the other sites?
    - Repeaters:
        - Quantity
        - For Each:
            - Manufacturer
            - Type/Model #:
            - Output (watts)
    - Receive Antennas:
        - Quantity
        - For Each:
            - Manufacturer
            - Type/Model #
            - Voted Receiver? (If yes, please provide detailed description)
    - Transmit Antennas:
        - Quantity
        - For Each:
            - Manufacturer
            - Type/Model #
    - Combiners:
        - Quantity
        - For each:
            - Manufacturer
            - Type/Model #
            - # of cavities
            - Frequencies used
    - Controller type
    - Controller model #
    - Control/home channels
    - Control channel rotation scheme (if applicable)
    - Other companies or agencies with MDTs capable of operating on this site
        - How many Companies/Agencies

        - How many total units
    - Any other information not specifically requested above which may affect the cost or logistics of retuning for this site on this site (accessibility, power supply, co-tenants, etc.)
- Total number of programmed mobile data terminals (MDTs), divided into active units and spare units:
    - Manufacturer
    - Model number

d.Console Information:

- Quantity of Console Stations

e. Any additional information not listed above about any aspect of the system(s) for which information is being provided that is critical to planning the costs and logistics of system relocation.

3. For SMR Licensees the following information shall be provided:

a. General Information:

- Company name
- Date of submission
- Designated Relocation contact, with all contact information (including mailing address, phone number, fax number, and e-mail address)
- Total number of active billed units:
    - Manufacturer
    - Model number
    - Unit type (portable, mobile, base station)

b. System Information (this information must be provided for each independently operating voice or data system):

- System manufacturer and type
- Total number of transmitter sites
- For each site:
    - Site name
    - FAA Tower Registration Number
    - Presence of existing building and tower space to accommodate possible duplicate system elements during relocation
    - Call sign(s) and frequencies in operation at the site
    - System type (Single-Site, Simulcast, Back-up, Voted, etc.)
    - If Simulcast, how is this site linked to the other sites?
    - Repeaters:
        - Quantity
        - For Each:
            - Manufacturer
            - Type/Model #:
            - Output (watts)
    - Receive Antennas:
        - Quantity
        - For Each:
            - Manufacturer
            - Type/Model #
            - Voted Receiver? (If yes, please provide detailed description)
    - Transmit Antennas:
        - Quantity
        - For Each:
            - Manufacturer
            - Type/Model #
    - Combiners:
        - Quantity

- For each:
  - Manufacturer
  - Type/Model #
  - # of cavities
  - Frequencies used
- Controller type
- Controller model #
- Control/home channels
- Control channel rotation scheme (if applicable)
- Failsoft channels (Frequency and number of units programmed on each frequency) (if applicable)
- Any other information not specifically requested above which may affect the cost or logistics of retuning for this site on this site (accessibility, power supply, co-tenants, etc.)

- Transmission type (Analog, Digital, or Both)
- System interconnect design (if any)

c. Any additional information not listed above about any aspect of the system(s) for which information is being provided that is critical to planning the costs and logistics of system relocation.

C. Relocation Planning and Filing of Applications by RCC.

1. Following the provision of the information described above to the RCC and FCC, and within 90 days following the effective date of this Order, the Phase I Planning Committee shall establish a detailed frequency plan setting forth post-relocation spectrum assignments for the Economic Area ("EA") licensees on channels 1-120 currently licensed in the New NPSPAC Block and those other incumbent licensees with operations in more than three (3) NPSPAC Regions and more than 400 frequencies ("Large Regional Licensees"). The frequency plan shall ensure Incumbent Licensees receive equivalent spectrum to their current frequencies, including comparable incumbency, co-channel protections pursuant to Section 90.621(b) of the FCC's Rules and contiguous channels, to the extent possible.

2. Following the provision of the information described above to the RCC and FCC, and within 120 days following the effective date of this Order, the Phase I Planning Committee shall establish a detailed frequency plan setting forth post-relocation spectrum assignments for all other licensees in each of the first 14 NPSPAC planning regions (as prioritized by the RCC by population and severity of public-safety interference), and shall establish a frequency plan for the remaining 41 NPSPAC planning regions within 180 days following the effective date of this Order. The frequency plan shall ensure Incumbent Licensees receive equivalent spectrum to

their current frequencies, including comparable incumbency and co-channel protections pursuant to Section 90.621(b) of the FCC's Rules.

3. The RCC shall submit the detailed frequency plans to the Commission for certification; because no interested parties' rights would be adversely affected by coordination of the frequency plans, the regional plans shall be certified by the Commission without public notice. Once an incumbent licensee and Nextel have reached contractual agreement on a relocation plan, as described below, the RCC will prepare and file any necessary license applications with the Commission on behalf of the licensees. Applications involving public safety incumbents shall be filed by the RCC (or the relevant applicant) with a certified public safety coordinator, which will complete a final review and submit the application to the FCC. Public safety coordinators are required to submit such applications to the FCC within seven days of receipt by the public safety coordinator. Because the detailed frequency plans will have been previously certified, individual applications shall be considered "pre-coordinated" by the Commission, but it is expected that individual applications may be subject to 30-day public notice procedures in accordance with FCC rules. The Commission shall use its best efforts to act upon all applications filed pursuant to relocations under this Order within 60 days of receipt. The Commission hereby deems all such applications are in the public interest by a rebuttable presumption and therefore they shall be granted expeditiously unless challenged by a party with standing to do so.

4. To accomplish the relocations described herein, and to the extent that Nextel is not licensed for the Lower 1-120 EA Blocks, Nextel shall receive nationwide special temporary overlay authority commencing as physical retunes begin in each NPSPAC Planning Region, and ending with respect to each NPSPAC Planning Region upon termination of Nextel's operation in the lower 120 channels pursuant to the applicable Regional Migration Plan (the "Special Temporary Overlay Authority").[2] The Special Temporary Overlay Authority shall give Nextel primary authority to operate within the interference contour as previously licensed to an Incumbent Licensee upon the cancellation of such Incumbent License as the result of the relocations completed pursuant to this Order.

D. Timing and Negotiation of Relocations. In most cases, Nextel is the current EA licensee in the New NPSPAC Block, and, as such, must play a direct role in Phase I of the relocation process. In this phase, relocation may be accomplished through private contractual agreement of the Incumbent

[2] To minimize processing delays, the Commission should grant Nextel STA authority for channels 1-120 in the Report and Order, effective in each Region upon the commencement of physical retunes.

Licensees and Nextel, with the coordination of the RCC in the exchange of information and selection of replacement frequencies.

1. For all EA licensees currently licensed on channels 1-120, and Large Regional Licensees, and once frequency plans have been certified to the FCC, a nine-month mandatory negotiation period for relocation of these licensees shall commence. Within that period, Nextel must provide a complete relocation offer, including: (i) proposed replacement frequencies as designated by the Phase I Planning Committee of the RCC; (ii) costs to be reimbursed by the Relocation Fund; (iii) proposed relocation agreement containing other standard terms and conditions; to each Incumbent Licensee who has provided Relocation Information, with a copy to the RCC (the "Relocation Proposal"). Negotiations may commence as early as upon receipt of the System Information by the RCC, but must commence upon certification of the Regional Frequency Plan. All parties shall respond in a timely and reasonable fashion to all relocation proposals, requests for meetings, and other correspondence or communication relating to negotiation. Once an agreement between the parties has been reached, the parties shall cooperate with the RCC in filing applications with the FCC. The Commission shall use its best efforts to act upon all applications filed pursuant to relocations under this Order within 60 days of receipt. The FCC expects that relocations will occur within 90 days of FCC approval of the subject applications. Relocation that do not occur within 90 days shall occur within 8 months of FCC approval of the subject applications or the incumbent licensee shall be subject to possible fines and possible cancellation of their license. It is expected that relocation of all incumbent licensees within this category shall be relocated within 23 months of the effective date of this Order.

2. For the first 14 prioritized Regions, as defined by the RCC, and once frequency plans have been certified to the FCC, a nine-month mandatory negotiation period for relocation of these licensees shall commence. Within that period, Nextel must provide a complete relocation offer, including: (i) proposed replacement frequencies as designated by the Phase I Planning Committee of the RCC; (ii) costs to be reimbursed by the Relocation Fund; (iii) proposed relocation agreement containing other standard terms and conditions; and (iv) a plan for each relocating licensee designed to prevent significant disruption of its operations, especially communications relating to the protection of life, health, and property to each Incumbent Licensee who has provided Relocation Information, with a copy to the RCC (the "Relocation Proposal"). Negotiations may commence as early as upon receipt of the System Information by the RCC, but must commence upon certification of the Regional Frequency Plan. All parties shall respond in a timely and reasonable fashion to all relocation proposals, requests for meetings, and other correspondence or communication relating to negotiation. Once an agreement between the

parties has been reached, the parties shall cooperate with the RCC in filing applications with the FCC. The Commission shall use its best efforts to act upon all applications filed pursuant to relocations under this Order within 60 days of receipt. The FCC expects that relocations will occur within 90 days of FCC approval of the subject applications. Relocation that do not occur within 90 days shall occur within 9 months of FCC approval of the subject applications or the incumbent licensee shall be subject to possible fines and possible cancellation of their license. It is expected that relocation of all incumbent licensees within this category shall be relocated within 24 months of the effective date of this Order.

3. For the all other licensees in the remaining Regions (Regions prioritized 15-55, as defined by the RCC), and once frequency plans have been certified to the FCC, a thirteen-month mandatory negotiation period for relocation of these licensees shall commence. Within that period, Nextel must provide a complete relocation offer, including: (i) proposed replacement frequencies as designated by the Phase I Planning Committee of the RCC; (ii) costs to be reimbursed by the Relocation Fund; (iii) proposed relocation agreement containing other standard terms and conditions; and (iv) a plan for each relocating licensee designed to prevent significant disruption of its operations, especially communications relating to the protection of life, health, and property to each Incumbent Licensee who has provided Relocation Information, with a copy to the RCC (the "Relocation Proposal"). Negotiations may commence upon receipt of the System Information by the RCC, but must commence upon certification of the Regional Frequency Plan. All parties shall respond in a timely and reasonable fashion to all relocation proposals, requests for meetings, and other correspondence or communication relating to negotiation. Once an agreement between the parties has been reached, the parties shall cooperate with the RCC in filing applications to relocate the subject facilities with the FCC. The Commission shall use its best efforts to act upon all applications filed pursuant to relocations under this Order within 60 days of receipt. It is expected that relocations will occur within 180 days of FCC approval of the subject applications. Relocations that do not occur within 180 days shall occur within 12 months of FCC approval of the subject applications or the incumbent licensee shall be subject to fines and possible cancellation of their license. Thus, it is expected that relocation of all incumbent licensees within this category shall be relocated within 33 months of the effective date of this Order.

4. Should an incumbent licensee and Nextel not reach agreement within the mandatory negotiation periods described above, either party may use the procedures below to initiate mediation or arbitration of unresolved cost and timing issues before a panel established by the RCC.

E. Relocation Spectrum for Incumbent Licensees.

1. Public Safety Incumbent Licensees. Licensees in this category will be moved to spectrum made available by Nextel in the Non-Cellular Block outside the Guard Band, or to currently unlicensed public safety spectrum in the Non-Cellular Block outside the Guard Band. In order to provide timely transition, new licenses with new call signs will be granted to the Incumbent upon application within 60 days of filing. Upon grant of the new application, the expiration date of the incumbent's existing license will be modified to the Phase I Completion Date. Once the incumbent has vacated its existing channels, its license will be voluntarily cancelled. Upon cancellation of the incumbent's license, Nextel may begin immediately to use the frequencies under its Special Temporary Overlay Authority or pursuant to its EA authority.

2. Business/Industrial and Land Transportation and Traditional Specialized Mobile Radio ("SMR") Licensees. For licensees in this category who elect to remain in the 800 MHz band, the first preference will be to relocate such licensees to spectrum made available by Nextel in the Guard Band, or if not all incumbent licensees in a geographic area can be accommodated in the Guard Band, to spectrum in the Non-Cellular Block outside of the Guard Band; provided, however, that "safety of life" or "mission critical" licensees (as defined by the FCC) may elect to select this option even if spectrum is otherwise available in the Guard Band. Non-public safety licensees electing to relocate from the Guard Band shall not be eligible for cost reimbursement. In order to provide timely transition, new licenses with new call signs will be granted to the Incumbent upon initial application within sixty (60) days of filing. Upon grant of the new application, the expiration date of the incumbent's existing license will be modified to the Phase I Completion Date. Once the incumbent has vacated its existing channels, its license will be voluntarily cancelled.

   Any incumbent licensee electing voluntary relocation to the 900 MHz Replacement Block must file a notice of intent to relocate with the Relocation Coordination Committee no less than 60 days following the effective date of this Order. Licensees choosing to relocate to 900 MHz spectrum shall receive licenses on a first-come, first serve basis. If an Incumbent licensee accepts relocation reimbursement from the Relocation Fund, then (i) during the completion of system relocation under the terms and conditions of the subject relocation agreement, the licensee shall have immediate use of 50% of its 900 MHz replacement spectrum upon issuance of its new license; (ii) the licensee shall receive a license for the remaining 50% of its 900 MHz replacement spectrum, but such license shall be secondary to Nextel's incumbent MTA or DFA license; Nextel's

license will be surrendered, and the licensee shall receive unfettered primary authority to use the spectrum, 180 days after the Phase II Completion Date; however, if an Incumbent licensee chooses to remain responsible for its own relocation costs, all of the 900 MHz replacement spectrum will be usable by the Incumbent upon issuance of its new license. Incumbent Licensees electing to relocate to the 900 MHz Replacement Band will be subject to the rules and schedules set forth herein for Phase I, including issuance of new FCC licenses authorizing use of the 900 MHz replacement frequencies. Once the incumbent has vacated its existing channels, its 800 MHz license will be assigned to Nextel or voluntarily cancelled by the FCC. Upon cancellation of the incumbent's license, Nextel may begin immediately to use the frequencies under its new licensing authority, Special Temporary Overlay Authority or EA authority.

3. Channel 1-120 EA Licensees. As described above, the RCC will, as a general rule, seek to complete relocation of EA Licensees first due to the complexity of replacement spectrum. The primary operation area of all EA Licensees in Blocks D, DD, E, EE, and Channels 101-120 of Block F shall be frozen as of the date of this Order; that is, the EA Licensee retains primary authority in all areas of the EA except within the interference contour of Incumbent licensees as of the date of this Order; this is the primary operating authority which will be subject to relocation. The cancellation of any Incumbent license as the result of a relocation completed pursuant to this Order shall not entitle the EA licensee to primary authority within the interference contour of such license. Any disputes regarding an EA licensee's "white space" will be mediated and resolved by the RCC.

4. Licensing Freeze. As of the effective date of this Order, no new applications shall be accepted for new Business and ILT licenses in the 800 MHz band except for those licenses to be issued expressly for the completion of the relocations contemplated under this Order and site-specific licenses issued to an EA licensee providing post-operation notice of their operating locations within their area of operation without affecting the rights of current protected incumbent licensees. All applications currently on file with the Commission will be acted upon in a timely manner, provided, however, that any currently pending applications for licenses and any pending Finder's Preference proceedings contemplating the grant of any new license which would create a new operational contour or expand the operational contour of any site-specific license for frequencies in New NPSPAC Block shall be amended by the Commission for eligible frequencies elsewhere in the Non-Cellular Block, either in the Guard Band or the non-NPSPAC public safety allocation, as applicable. To the extent there are any remaining SMR Upper-200 channel incumbents who have yet to relocate to comparable facilities, subject to Section 90.699 of the Commission's Rules, those licensees may be

relocated to spectrum in the Non Cellular Block. Any Incumbent License subject to renewal during the mandatory negotiation period will only be renewed for six (6) months, subject to execution of a relocation agreement during the renewal period. If a relocation agreement has been executed, the license may be renewed for a second six (6) month period.

F. Binding Arbitration. If Nextel and the Incumbent licensee reach an impasse during the mandatory negotiation period, either party may seek the mediation assistance of the RCC. If the parties cannot complete a relocation agreement by the end of the required mandatory negotiation periods, either party may initiate arbitration. Arbitration shall be conducted by an independent panel established by the Relocation Coordination Committee to review relocation proposals in a "Major League Baseball"-style arbitration: Nextel and the Incumbent Licensee will each present a single, best-and-final relocation proposal to the panel, which based on the relative merits must choose one of the two proposals and present its findings in a reasoned opinion. The decision of the panel shall be binding, provided, however, that any decision or portion of a decision of the arbitration panel with respect to whether replacement frequencies meet the definition of comparable facilities set forth in this Order may be appealed to the Commission. The Commission will give great weight to the decision of the arbitration panel in the consideration of any such appeal, and shall expedite the adjudication of any such appeal to the greatest extent allowed by law. The parties shall execute the relocation agreement within ten (10) days following the final arbitration decision. Should a public safety Incumbent Licensee be subject to state, municipal or other laws and regulations limiting their participation in binding arbitration, the parties shall be directed to undertake all best efforts to reconcile any unresolved cost and/or timing issues consistent with applicable state and local requirements, including non-binding arbitration subject to review and reversal by the FCC.

G. Failure to Comply. Any Incumbent licensee who has not provided the requested information within the deadlines specified above shall be subject to fines levied by the FCC to be deposited in the Relocation Fund. Unless the arbitration procedures above have been initiated, if any Incumbent Licensee has not executed a relocation agreement or vacated its original frequencies within twenty-four (24) months for EA, Large Regional Licensees or licensees in Regions prioritized 1-14 or within 33 months for all other licensees in Regions prioritized 15-55, following the effective date of this Order, then the FCC shall (i) cancel the subject license(s) through involuntary license cancellation; (ii) issue a new license under a new call sign to the licensee for the designated replacement frequencies; or (iii) direct the licensee to move system operations to the new frequencies within thirty (30) days. Should an Incumbent public safety Licensee be unable to vacate its original frequencies within the deadlines established herein due to circumstances beyond its control and has exhibited best efforts to meet any applicable deadline, the Incumbent public safety Licensee may seek an extension of the relocation period.

H. Costs: All direct, reasonable costs for relocating licensees shall be subject to payment or reimbursement through the Relocation Fund up to a total of $850 million. Nextel shall be eligible for reimbursement from the Relocation Fund for any otherwise reimbursable relocation costs incurred pursuant to a relocation agreement executed by Nextel and an Incumbent licensee between December 24, 2002, and the date of this Order. Reimbursable costs shall be similar to those enumerated in WT Docket No. 93-144

III. Phase II: Relocation of Public Safety Guard Band Incumbents and Incumbent NPSPAC Licensees to the New NPSPAC Block

A. General. The mandatory relocation of all Incumbent NPSPAC Licensees from the Current NPSPAC Block to the New NPSPAC Block, voluntary relocation of public safety incumbent licensees from the 800 MHz Guard Band (859-861 MHz) to elsewhere in the Non-Cellular Block and relocation of Nextel from the New NPSPAC Block to the Current NPSPAC Block shall commence within 24 months of the effective date of this Order (the "Phase II Start Date") and shall be completed within 18 months thereafter ("Phase II Completion Date"). The relocation of the Incumbent NPSPAC Licensees shall commence on a regional planning area basis as set forth below. Any public safety Guard Band Incumbent seeking to relocate subject to this Order must file a notice of intent to relocate with the FCC no less than sixty (60) days following the date of this Order. All public safety Guard Band Incumbents filing such notice agree, by virtue of such notice, to be bound by the provisions of this section. Any public safety Guard Band incumbents not electing to relocate will receive interference protection from CMRS operations in accordance with the parameters set forth in Appendix F herein.

B. Exchange of Information. Because providing information is critical to carrying out the relocation process for all licensees, the FCC shall require incumbent licensees in Regions prioritized 1-14 to provide the following information listed below ("System Information") to the RCC and FCC for use by third-parties in performing relocation of the subject facilities within 120 days of the effective date of this Order. For incumbent licensees in Regions prioritized 15-55, this information shall be required within one-year of the effective date of this Order. This information shall only be distributed by the RCC to third-parties subject to Confidentiality Agreements and who have a need to know such information for the purposes of negotiating relocation agreements and completing the system relocations contemplated herein. Licensees shall cooperate in the provision of the required information and shall make themselves available to the RCC to explain or elaborate upon any submissions. The FCC shall issue a Public Notice to announce the commencement of the applicable time period for providing the listed information and the RCC shall ensure that impacted licensees are provided notice of the required information submittal process via certified mail, return receipt requested, or other proof of delivery.

1. For Public Safety Licensees the following information shall be provided:

a. General Information:

- Agency name
- Date of submission
- Designated Relocation contact, with all contact information (including mailing address, phone number, fax number, and e-mail address)
- Number and Location of Dispatch Centers

b. Voice System Information (this information must be provided for each independently operating system):

- System manufacturer and type
- Total number of transmitter sites
- For each site:
    - Site name
    - FAA Tower Registration Number
    - Presence of existing building and tower space to accommodate possible duplicate system elements during relocation
    - Call sign(s) and frequencies in operation at the site
    - System type (Single-Site, Simulcast, Back-up, Voted, etc.)
    - If Simulcast, how is this site linked to the other sites?
    - Repeaters:
        - Quantity
        - For Each:
            - Manufacturer
            - Type/Model #:
            - Output (watts)
    - Receive Antennas:
        - Quantity
        - For Each:
            - Manufacturer
            - Type/Model #
            - Voted Receiver? (If yes, please provide detailed description)
    - Transmit Antennas:
        - Quantity
        - For Each:
            - Manufacturer
            - Type/Model #
    - Combiners:
        - Quantity
        - For each:
            - Manufacturer
            - Type/Model #

        - # of cavities
        - Frequencies used
    - Controller type
    - Controller model #
    - Control/home channels
    - Control channel rotation scheme (if applicable)
    - Failsoft channels (Frequency and number of units programmed on each frequency) (if applicable)
    - Other companies or agencies with units capable of operating on this site/system (using this site/system as secondary)
        - organization name
        - Number of other companies/agencies units programmed for site
    - Any other information not specifically requested above which may affect the cost or logistics of retuning for this site on this site (accessibility, power supply, co-tenants, etc.)
- Transmission type (Analog, Digital, or Both)
- System Interconnect Design (if any)
- Total number of programmed units for your agency use (primary on this site/system), divided into active units and spare units:
    - Manufacturer
    - Model number
    - Unit type (portable or mobile)
- Radio assignment method (i.e., by officer, by vehicle, or to shift on duty, number of hours per day each radio is in use)
- Total number of programmed units owned or controlled by other agencies which use this site/system as primary
    - Agency name
    - Radio Manufacturer
    - radio Model number
    - Unit type (portable or mobile)
- Other radio systems programmed into your agency radios for cross-system operation
    - Agency/ies operating other system(s)
    - System type
    - Quantity of units programmed for operating on the other system

c. <u>Data System Information (this information must be provided for each independently operating system)</u>:

- General System Description, including coverage and main users of system
- System manufacturer and type
- Total number of transmitter sites
- For each site:
    - Site name

- FAA Tower Registration Number
- Presence of excess building and tower space to accommodate possible duplicate system elements during relocation
- Call sign(s) and frequencies in operation at the site
- System type (Single-Site, Simulcast, Back-up, Voted, etc.)
- If Simulcast, how is this site linked to the other sites?
- Repeaters:
  - Quantity
  - For Each:
    - Manufacturer
    - Type/Model #:
    - Output (watts)
- Receive Antennas:
  - Quantity
  - For Each:
    - Manufacturer
    - Type/Model #
    - Voted Receiver? (If yes, please provide detailed description)
- Transmit Antennas:
  - Quantity
  - For Each:
    - Manufacturer
    - Type/Model #
- Combiners:
  - Quantity
  - For each:
    - Manufacturer
    - Type/Model #
    - # of cavities
    - Frequencies used
- Controller type
- Controller model #
- Control/home channels
- Control channel rotation scheme (if applicable)
- Other companies or agencies with units capable of operating on this site
  - organization name
  - Number of units programmed for site
  - Connection type to other organization's console, if any
- Any other information not specifically requested above which may affect the cost or logistics of retuning for this site on this site (accessibility, power supply, co-tenants, etc.)

- Total number of programmed mobile data terminals (MDTs), divided into active units and spare units (your agency)

- Manufacturer
- Model number

d. Console Information:

- Quantity of console stations

e. Mutual Aid Information: (If agency owns and maintains any mutual aid system or channels on its licensed frequencies)

- For each site:
  - Site name
  - FAA Tower Registration Number
  - Presence of excess building and tower space to accommodate possible duplicate system elements during relocation
  - Call sign(s) and frequencies in operation at the site
  - Repeaters:
    - Quantity
    - For Each:
      - Manufacturer
      - Type/Model #:
      - Output (watts)
  - Receive Antennas:
    - Quantity
    - For Each:
      - Manufacturer
      - Type/Model #
      - Voted Receiver? (If yes, please provide detailed description)
  - Transmit Antennas:
    - Quantity
    - For Each:
      - Manufacturer
      - Type/Model #
  - Combiners:
    - Quantity
    - For each:
      - Manufacturer
      - Type/Model #
      - # of cavities
      - Frequencies used
  - Any other information not specifically requested above which may affect the cost or logistics of retuning for this site on this site (accessibility, power supply, co-tenants, etc.)

f. Any additional information not listed above about any aspect of the system(s) for which information is being provided that is critical to planning the costs and logistics of system relocation, including any funded near-term upgrade plans.

C. Regional Plan Updates; Incumbent Migration Planning; Negotiations.

(1) For Regions prioritized 1-14 - Within eight months following the effective date of this Order (the "Regional Plan Revision Deadline"), the 800 MHz Regional Planning Committees in Regions prioritized 1-14 shall meet and either reconfirm the transfer of the current NPSPAC regional channel plan ("Regional Plan") to the New NPSPAC Block, or shall complete any necessary or desired revisions to the plan, consistent with existing FCC rules for revising NPSPAC plans; provided, however, that any such changes cannot impact public safety licenses outside of the Current NPSPAC block (The "Revised Regional Plans"). The frequencies assigned to each NPSPAC Licensee by the Regional Planning Committee in the New NPSPAC Block are deemed comparable frequencies for the purposes of this Order. All amendments to any Regional Plan between the Phase II Completion Date and the earlier of (i) the Regional Plan Revision Deadline, and (ii) delivery of the applicable Revised Regional Plan to the FCC must be coordinated with the RCC, and should be implemented with respect to the New NPSPAC Block. Within 60 days of the adoption of a Revised Regional Plan, the Phase II Planning Committee shall complete coordination with the Regional Planning Committee and all affected Incumbent Licensees in the development of a regional migration plan for relocation of all Incumbent NPSPAC Licensees to the New NPSPAC Block, and relocation of Nextel from the New NPSPAC Block to the Current NPSPAC Block (the "Regional Migration Plan"). Upon completion of each Regional Migration Plan, the RCC's Phase II Planning Committee shall certify to Commission. The Regional Migration Plan shall address, *inter alia*, (i) The order of commencement of reprogramming among the various licensees in the Region; considering factors such as population, geography, system size and complexity, interoperability, and the contemporaneous relocation of current public safety licenses in the Guard Band (ii) the reprogramming of any mutual aid or regional use frequencies; (iii) the timing of Nextel's termination of network operations on New NPSPAC Block; (iv) the timing of Nextel's commencement of operations on the Current NPSPAC Block. Certification of each Regional Migration Plan shall commence a nine-month mandatory negotiation period between Nextel and each incumbent licensee concerning relocation timing, reimburseable costs and detailed procedures specific to each licensee to implement relocation without significant disruption to public safety communications services. Once an incumbent licensee and Nextel have reached agreement on a relocation plan, the RCC will prepare and file the necessary license applications with the Commission on behalf of the affected licensees. Applications involving public safety incumbents shall be filed by the RCC (or the relevant applicant) with a certified public safety coordinator, which will complete a final review and submit the application to the FCC. Public safety coordinators are required to submit such applications to the FCC within seven

days of receipt by the public safety coordinator. Because the Revised Regional Plans will have been previously certified, individual applications shall be considered "pre-coordinated" by the Commission, but it is expected that individual applications may be subject to 30-day public notice in accordance with FCC rules. If Nextel and an incumbent licensee cannot complete a relocation agreement within the first four months of the mandatory negotiation period, they are required to seek the mediation assistance of the Regional Planning Committee. If no agreement is reached at the end of the mandatory nine-month negotiation period, either party may initiate a "baseball-type" arbitration process, as described in Section II(F).

(2) For Regions prioritized 15-55 - Within sixteen months following the effective date of this Order (the "Regional Plan Revision Deadline"), the 800 MHz Regional Planning Committees in Regions prioritized 15-55 shall meet and either reconfirm the transfer of the current NPSPAC regional channel plan ("Regional Plan") to the New NPSPAC Block, or shall complete any necessary or desired revisions to the plan, consistent with existing FCC rules for revising NPSPAC plans; provided, however, that any such changes cannot impact public safety licenses outside of the Current NPSPAC block (The "Revised Regional Plans"). The frequencies assigned to each NPSPAC Licensee by the Regional Planning Committee in the New NPSPAC Block are deemed comparable frequencies for the purposes of this Order. All amendments to any Regional Plan between the Phase II Completion Date and the earlier of (i) the Regional Plan Revision Deadline, and (ii) delivery of the applicable Revised Regional Plan to the FCC must be coordinated with the RCC, and should be implemented with respect to the New NPSPAC Block. Within 60 days of the adoption of a Revised Regional Plan, the Phase II Planning Committee shall complete coordination with the Regional Planning Committee and all affected Incumbent Licensees in the development of a regional migration plan for relocation of all Incumbent NPSPAC Licensees to the New NPSPAC Block, and relocation of Nextel from the New NPSPAC Block to the Current NPSPAC Block (the "Regional Migration Plan"). Upon completion of each Regional Migration Plan, the RCC's Phase II Planning Committee shall certify to Commission. The Regional Migration Plan shall address, *inter alia*, (i) The order of commencement of reprogramming among the various licensees in the Region; considering factors such as population, geography, system size and complexity, interoperability, and the contemporaneous relocation of current public safety licenses in the Guard Band (ii) the reprogramming of any mutual aid or regional use frequencies; (iii) the timing of Nextel's termination of network operations on New NPSPAC Block; (iv) the timing of Nextel's commencement of operations on the Current NPSPAC Block. Certification of each Regional Migration Plan shall commence a thirteen-month mandatory negotiation period between Nextel and each incumbent licensee concerning relocation timing, reimburseable costs and detailed procedures specific to each licensee to implement relocation without significant disruption to public safety communications services. Once an incumbent licensee and Nextel have reached agreement on a relocation plan, the RCC will prepare and file the necessary license applications with the Commission on behalf of the affected

licensees. Applications involving public safety incumbents shall be filed by the RCC (or the relevant applicant) with a certified public safety coordinator, which will complete a final review and submit the application to the FCC. Public safety coordinators are required to submit such applications to the FCC within seven days of receipt by the public safety coordinator. Because the Revised Regional Plans will have been previously certified, individual applications shall be considered "pre-coordinated" by the Commission, but it is expected that individual applications may be subject to 30-day public notice in accordance with FCC rules. If Nextel and an incumbent licensee cannot complete a relocation agreement within the first six months of the mandatory negotiation period, they are required to seek the mediation assistance of the Regional Planning Committee. If no agreement is reached at the end of the mandatory ten-month negotiation period, either party may initiate a "baseball-type" arbitration process, as described in Section II.(F).

D. Relocation Negotiations. During the respective mandatory negotiation period, Nextel must provide a complete relocation offer, including: (i) proposed replacement frequencies in accordance with the Regional Migration Plan; (ii) costs to be reimbursed by the Relocation Fund; (iii) the timing of relocation in accordance with the Regional Migration Plan; (iv) proposed relocation agreement containing other standard terms and conditions; and (iv) a plan for each relocating licensee designed to prevent significant disruption of its operations, especially communications relating to the protection of life, health, and property to each Incumbent Licensee who has provided Relocation Information, with a copy to the RCC (the "Relocation Proposal"). All parties shall respond in a timely and reasonable fashion to all relocation proposals, requests for meetings, and other correspondence or communication relating to negotiation. The parties shall not be obligated to commence actual relocation in any NPSPAC Planning Region until each Incumbent Licensee in the Planning Region has executed a relocation agreement. However, relocation may commence earlier by mutual agreement of the Phase II Planning Committee and the affected Licensee(s).

E. Binding Arbitration. If the parties cannot complete a relocation agreement within nine (9) months of the commencement of the mandatory negotiation period for Regions prioritized 1-14, and within six months for Regions prioritized 15-55, Nextel and the Incumbent licensee shall seek the mediation assistance of the Regional Planning Committee or the Phase II Planning Committee. If the parties cannot complete a relocation agreement within the mandatory negotiation period, either party may initiate arbitration. Arbitration shall be conducted by a panel established by the Relocation Coordination Committee to review relocation proposals in a "Major League Baseball"-style arbitration: Nextel and the Incumbent Licensee will each present a single, best-and-final relocation proposal to the panel, which based on the relative merits must choose one of the two proposals and present its findings in a reasoned opinion. The decision of the panel shall be binding, provided, however, that any decision or portion of a decision of the arbitration panel with respect to whether replacement frequencies

meet the definition of comparable facilities set forth in this Order may be appealed to the Commission. The Commission will give great weight to the decision of the arbitration panel in the consideration of any such appeal, and shall expedite the adjudication of any such appeal to the greatest extent allowed by law. The parties shall execute the relocation agreement within ten (10) days following the final arbitration decision. Should a Incumbent NPSPAC Licensee be subject to state, municipal or other laws and regulations limiting their participation in binding arbitration, the parties shall be directed to undertake all best efforts to reconcile any unresolved cost and/or timing issues consistent with applicable state and local requirements, including non-binding arbitration subject to review and reversal by the FCC.

F. Costs: All direct, reasonable costs for NPSPAC Licensees shall be subject to payment or reimbursement through the Relocation Fund. Upon completion of all relocation agreements in a NPSPAC Region, the Regional Planning Committee shall send written notice to the Relocation Fund reserving monies equal to the aggregate relocation costs for all Incumbent Licensees the Planning Region. The Relocation Fund Administrator shall allocate and guarantee availability of those funds for that Region. Reimbursable costs shall be similar to those in WT Docket No. 93-144.

G. Failure to Comply. Any Incumbent NPSPAC Licensee who has not provided the requested information within the deadlines shall be subject to fines levied by the FCC to be deposited in the Relocation Fund. Any prioritized Region 1-14 Incumbent NPSPAC Licensee which has not executed a relocation agreement within 24 months following the date of the relevant Regional Relocation Notice or vacated its original frequencies within thirty-three (33) months following the effective date of the Order shall be issued a new license by the FCC for the replacement frequencies set forth in the applicable Regional Migration Plan, and given thirty days to relocate, combined with either (i) involuntary license cancellation by the FCC; or (ii) permanent modification of the subject license by the Commission to secondary status. Any prioritized Region 15-55 Incumbent NPSPAC Licensee which has not executed a relocation agreement within 31 months following the effective date of the Order or vacated its original frequencies within forty-two (42) months following the effective date of the Order shall be issued a new license by the FCC for the replacement frequencies set forth in the applicable Regional Migration Plan, and given thirty days to relocate, combined with either (i) involuntary license cancellation by the FCC; or (ii) permanent modification of the subject license by the Commission to secondary status. Should an Incumbent NPSPAC Licensee be unable to vacate its original frequencies within the deadlines established herein due to circumstances beyond its control and has exhibited best efforts to meet any applicable deadline, the Incumbent NPSPAC Licensee may seek an extension of the relocation period.

APPENDIX D

REALIGNMENT TIMELINE

800 MHZ CONSENSUS PLAN REALIGNMENT TIMELINE

Realignment Timescale	**Phase I - Relocation of Channel 1-120 Incumbents - EA Licensees and Large Regional Operators**	**Phase I - Relocation of Channel 1-120 Incumbents - Regions 1-14**	**Phase I - Relocation of Channel 1-120 Incumbents - Regions 15-55**	**Phase II - Relocation of NPSPAC and Guard Band Public Safety Licensees - Regions 1-14**	**Phase II - Relocation of NPSPAC and Guard Band Public Safety Licensees - Regions 15-55**
Effective Date of Order					
5 Days From Order			Public Notice To supply Information		
45 Days From Order	System Information Provided to RCC	System Information Provided to RCC	System Information Provided to RCC	Notification by Public Safety in if they desire to relocate out of the Guard Band	Notification by Public Safety in if they desire to relocate out of the Guard Band
60 Days From Order		Deadline for Incumbents wishing to relocate to 900 MHz to notify RCC	Deadline for Incumbents wishing to relocate to 900 MHz to notify RCC	Public Notice To supply Information	
90 Days From Order	Frequency Plan Completed by RCC-Mandatory Negotiation Period Begins				
120 Days From Order		Frequency Plan Completed by RCC-Mandatory Negotiation Period Begins		System Information Provided to RCC	
180 Days From Order			Frequency Plan Completed by RCC-Mandatory Negotiation Period Begins		
8 months	Mediation Assistance Available	Mediation Assistance Available		Revised Regional plan Due	
9 Months					Public Notice To supply Information
10 Months			Mediation Assistance Available	Regional Migration Plan Due-Mandatory Negotiation Period Begins	

800 MHZ CONSENSUS PLAN REALIGNMENT TIMELINE

12 Months	Mandatory Negotiation Period Ends- Arbitration Requests				System Information Provided to RCC
13 Months		Mandatory Negotiation Period Ends- Voluntary Arbitration requests			
14 Months	Physical Retune Begins		Arbitration Requests	Mediation Assistance Available	
15 Months		Physical Retune Begins			
16 Months					Revised Regional plan Due
18 Months					Regional Migration Plan Due-Mandatory Negotiation Period Begins
19 Months			Mandatory Negotiation Period Ends		
21 Months			Physical Retune Begins		
22 Months				Mandatory Negotiation Period Ends- Arbitration Requests	
23 Months	Physical Retune Completed				
24 Months		Physical Retune Completed		Physical Retune Begins	Mediation Assistance Available
26 Months					Arbitration Requests
30 Months					
31 Months					Mandatory Negotiation Period Ends
33 Months			Physical Retune Completed	Physical Retune Completed	Physical Retune Begins
36 Months					
42 Months					Physical Retune Completed

APPENDIX E

SAMPLE REALIGNMENT PRIORITIZATION

FOR

55 NPSPAC REGIONS

Sample Prioritization for 55 NPSPAC Regions

Priority	REGION	Region Name	Pops
1	5	California-South	18269095
2	7	Colorado	3294394
3	8	Metro NY	19483873
4	3	Arizona	3665228
5	6	California-North	11490926
6	43	Washington	4866692
7	35	Oregon	2842321
8	9	Florida	12937926
9	20	DC	6900863
10	54	Metro Chicago	13034245
11	19	New England	11257791
12	33	Ohio	10847115
13	28	New Jersey-Philadelphia	9861035
14	21	Michigan	7744110
15	31	North Carolina	6628637
16	10	Georgia	6478216
17	40	Texas-Dallas	5163389
18	24	Missouri	5117073
19	39	Tennessee	4877185
20	36	Western Pennsylvania	4770714
21	51	Texas-Houston	4715445
22	42	Virginia	4655241
23	22	Minnesota	4375099
24	14	Indiana	4313234
25	18	Louisiana	4219973
26	1	Alabama	4040587
27	17	Kentucky	3685296
28	13	Illinois	3639770
29	37	South Carolina	3486703
30	30	New York-Albany	3261682
31	34	Oklahoma	3145585
32	53	Texas-San Antonio	3138753
33	55	New York-Buffalo	2840302
34	15	Iowa	2776755
35	23	Mississippi	2573216
36	16	Kansas	2477574
37	45	Wisconsin	2430468
38	4	Arkansas	2350725
39	44	West Virginia	1793477
40	41	Utah	1722850
41	49	Texas-Austin	1582714

Sample Prioritization for 55 NPSPAC Regions

42	26	Nebraska	1578385
43	29	New Mexico	1515069
44	50	Texas-El Paso	1440485
45	27	Nevada	1201833
46	11	Hawaii	1108229
47	12	Idaho	1006749
48	52	Texas-Lubbock	945724
49	25	Montana	799065
50	38	South Dakota	696004
51	32	North Dakota	638800
52	2	Alaska	550043
53	46	Wyoming	453588
54	47	Puerto Rico	
55	48	US Virgin Islands	

APPENDIX F –

POLICIES AND PROCEDURES

FOR

POST-REALIGNMENT INTERFERENCE MITIGATION

POLICIES AND PROCEDURES FOR
POST-REALIGNMENT INTERFERENCE MITIGATION

1. Introduction.

a. Consensus Plan Interference Mitigation. The Consensus Plan would substantially eliminate the current incidence of CMRS – public safety interference in the 800 MHz band. As described in Nextel's September 23 comments,[1] the Consensus Plan will reduce the probability of current CMRS – public safety intermodulation interference by more than 90 percent for many current NPSPAC licensees, and by as much as 65 percent for public safety licensees in the non-cellular block remaining closest to the new cellular channel block. Interference issues related to out-of-band emissions ("OOBE") will be virtually eliminated outside of the new 800 MHz Guard Band.

b. Post-Realignment Rules. The Consensus Parties propose, therefore, that the Commission adopt the following policies and procedures to address the remaining incidents of CMRS – public safety interference upon completion of the Consensus Plan realignment in a NPSPAC Region.[2] For purposes of these provisions, realignment will be considered complete when all public safety, B/ILT, and high-site SMR licensees in a Region are relocated as required by the Consensus Plan and Nextel is licensed for the 816-824/861-869 MHz block in that Region.

1.1 Interference Mitigation During Realignment: During the period from the adoption of the First Report and Order until realignment is completed all affected parties shall conform to the following procedures and actions set forth in the Best Practices Guide to mitigate CMRS – public safety interference. All licensees in the 800 MHz band operating low-site cellular systems are equally obligated to participate in responding to interference complaints and for mitigating their contribution to actual interference. Any licensee that does not receive the cooperation of CMRS licensees with sites within 5000 feet of the alleged area of interference are encouraged to use the FCC's informal complaint process to compel cooperation.

1.2 Definition of interference. Upon completion of 800 MHz realignment in a Region, CMRS – public safety interference will be defined as a reduction in the ratio of the desired signal to undesired signals and noise below a minimum recommended value.

1.2.1 Voice Systems. For voice systems, the minimum recommended C/I+N value for defining interference will be a C/I+N of 20 dB.

1.2.2 Non-Voice Systems. For non-voice public safety communications systems, the equipment manufacturer will supply the minimum recommended C/I+N value.

---

[1] September 23, 2002 Comments of Nextel Communications, Inc. at page 6.

[2] These policies and procedures would also apply to interference between non-public safety noise limited systems in the non-cellular block and CMRS systems.

1.3 CMRS - Public Safety Interference Mechanisms. The two primary mechanisms creating interference from 800 MHz CMRS operations to noise-limited systems ("NLS") in the 851-861 MHz range are as follows:

a. An increase in the noise floor in end-user receiver equipment in a NLS due to OOBE from nearby CMRS transmitters. Post-realignment, the Consensus Plan requires that CMRS sites be designed with increased filtering -- which they will now be able to implement due to the realignment -- and which should virtually eliminate CMRS – public safety interference resulting from OOBE.

b. The formation of intermodulation products in NLS receivers originating from relatively strong off-frequency signals from nearby CMRS transmitters. Intermodulation products may result from insufficient receiver attenuation of the off-frequency CMRS signal, high individual or composite CMRS signal strength in the immediate area of interference (aggregate on-street CMRS signals above approximately –40 dBm are more likely to cause intermodulation products in 800 MHz public safety receivers), or various combination of these factors.

2. Rights and responsibilities. These policies and procedures will clarify the rights and responsibilities of various entities that will be operating in the 800 MHz spectrum after realignment is completed. The 800 MHz spectrum, for the purposes of this discussion, covers all users operating base stations transmitting in the range 851-895 MHz.

2.1 Rights. Upon the completion of realignment in a Region, all operators of base station transmitters in the range 851-859 MHz will have the following interference protections:

2.1.1. System Transmitting in the Range 851-859 MHz. Operators of base station transmitters in the range 851-859 MHz will be entitled to operate free from measurable interference, as defined in Section 1.2, caused by CMRS operations above 861 MHz.

a. Existing Systems. "Existing" public safety communications systems and other non-cellular block licensees, *i.e.*, those under construction or in operation as of the effective date of the Report and Order in this Docket, shall be protected from CMRS – public safety interference to a measured desired signal level of –98 dBm in the area of interference. The technique for making this measurement will be included in the revised Best Practices Guide in 3.0.

b. New or Replacement Systems. Public safety systems and other non-cellular block licensees constructed after the effective date of the Report and Order herein, or systems replaced, modified or upgraded after that date, shall be protected from CMRS – public safety interference to a measured desired signal level of –95 dBm in the area of interference. The technique for making this measurement will be included in the revised Best Practices Guide in 3.0

c. Reliability Considerations. For either "existing" systems and "new or replacement systems," the interference protection established here will be based on an area coverage probability of 95%. If the system in question was designed to a greater level of coverage probability, the operator will be entitled to operate free from

measurable interference at that higher level, provided that the system operator documents that the system was built to achieve a higher coverage probability.

d. Interference Protection Adjustment. If the public safety communications system or other non-cellular block licensee being evaluated was designed with a C/I+N requirement greater than 20 dB, the applicable interference threshold specified above will be adjusted on a dB for dB basis as required to meet the C/I+N requirement of the system (e.g. a system requiring a C/I+N of 35 dB would be required to deliver 15 dB more signal in the apparent interference area than a system requiring a 20 dB C/I+N).

2.1.2 Systems Transmitting in the Range 859-861 MHz. Operators of non-cellular base station transmitters in the range 859-861 MHz (the 800 MHz Guard Band) will be entitled to operate free of CMRS – public safety interference to the same extent as set forth in Section 2.1.1, for licensees operating between 851-859 MHz; *except that,* the interference protection thresholds will increase as the frequency of the desired signal rises from 859 to 861 MHz. The interference thresholds will rise linearly from 0 dB at 859 MHz to 6 dB at 859.5 MHz, and to 33 dB at 860.5 MHz and for all frequencies between 860.5 and 861.0 MHz.

2.1.3. CMRS Operator's Response Obligation. In the event a public safety or other non-cellular communications operator reasonably believes, based on generally accepted engineering analysis, that it is experiencing CMRS – public safety interference at a specific location or locations, all potentially interfering CMRS licensees within 5,000 feet of the interference area are required to cooperate fully with the public safety operator to respond to, test, analyze and determine the cause of the reported interference. Specific response requirements are detailed further in Section 3, herein.

2.1.3 System Transmitting in the Range 861-895 MHz. Upon an allegation that the licensee is causing, in whole or in part, CMRS – public safety interference at 800 MHz, the licensee of an interference-limited system in the range 861-895 MHz will be entitled to a timely determination of responsibility for interference contribution utilizing a standardized, repeatable analysis with calibrated test equipment and based on the definition of interference in Section 1.1, as measured at the location of interference.

2.2 800 MHz Licensee Responsibilities. All parties operating base station transmitters in the range 851-895 MHz have responsibilities as part of the continued granting of their licenses, and the continued granting of type acceptance for equipment manufacturers.

2.2.1 Protection of data. All parties to any interference analysis or mitigation shall treat any and all data exchanged as part of an interference analysis or mitigation action as covered by a non-disclosure agreement, regardless of whether a non-disclosure agreement has been signed by the parties.

2.2.2 Systems Transmitting in the Range 851-861 MHz. All licensees/operators of noise-limited systems shall, as a condition of the continued authorization of their licenses, comply with the following responsibilities:

a. If a licensee initiates a CMRS – public safety interference complaint, the licensee shall participate in the analysis of the complaint and shall provide to the other entities information about the system being interfered with, in accordance with the response times and procedures established in Section 3.0, below.

b. The complaining licensee shall ensure that its system that is being interfered with is current with regard to maintenance and service bulletins from the equipment manufacturer. This does not mean that the equipment must be the latest generation available from the manufacturer; a system is deemed to be current if the system and its components are up-to-date per manufacturer service or maintenance bulletins regarding the system, its hardware and software, including both the infrastructure and the subscriber units.

c. If, as a result of analysis conducted per Section 3.0, it is established that the system being interfered with does not meet the required minimum desired signal levels, as defined in Sections 2.1.1 and 2.1.2, for systems operating below 861 MHz, the system being interfered with shall be modified to operate in accordance with these signal requirements in the area of the purported interference. A CMRS operator is not required to make any adjustments or modifications to its communications system to mitigate the complained-of interference, unless the complaining system is operating in accordance with the applicable required minimum signal levels in the area of purported interference.

1. Although CMRS licensees are not required to modify their systems if the NLS does not meet the required signal levels established herein, the Consensus Parties encourage CMRS operators to assist public safety licensees in providing reliable life safety communications services to the extent that such assistance does not degrade CMRS service capacity or quality, is of a temporary or interim nature, or is otherwise acceptable to the CMRS licensee.

d. NLS licensees shall design new system and/or replacement or upgraded systems for the range 851-861 MHz using the thresholds in Sections 2.1.1 and 2.1.2, depending on where the system transmitting frequencies are assigned.

2.2.3 Operators transmitting in the range 861-895 MHz. As a condition of the continued authorization of their licenses, all operators transmitting in the range 861-895 MHz shall have the following responsibilities:

a. The operator shall maintain an organization to respond to interference complaints according to response times and procedures in Section 3.0. This organization shall maintain (1) staff, (2) equipment, (3) budget, and (4) authority to (a) respond to complaints, (b) carry out analysis in conjunction with complainants and other entities, and (c) mitigate interference where the analysis indicates that the operator is a contributor. The operator shall certify to the FCC that this organization is in place and shall specify how the operator can be notified of an interference complaint within 60 days of the effective date of the Report and Order.

b. If the operator is identified as a potential contributor to an interference complaint, respond to the complaint according to response times and procedures in Section 3.0.

c. To the extent that mitigation of interference requires reduction in on-street power by more than one operator, all operators shall reduce power equally.

2.2.4 Equipment manufacturers. Within nine months the effective date of the Report and Order herein, each 800 MHz equipment manufacturer shall establish a standard, repeatable method for assessing interference to existing non-voice equipment developed by them and designed for use in the 851-861 MHz range. Manufacturers shall include in all new system designs, and provide to the licensee, the necessary processes and measurements to analyze the performance of the system as it is affected by potential interferors.

3.0 Resolving Interference.

a. Revised Best Practices Guide. The Consensus Parties recommend that the Commission direct the formation of a working group composed of representatives of all affected CMRS carriers, public safety licensees, private wireless and H-SMR licensees, equipment manufacturers, 800 MHz system designers and 800 MHz frequency coordinators. The Commission would charge the working group with responsibility for developing, publishing and submitting to the Commission, within one year of its initiation, a revised Best Practices Guide for Mitigating CMRS – public safety interference at 800 MHz. The working group would operate through consensus procedures. The Revised Best Practices Guide should establish procedures for notification, analysis, and mitigation of interference by entities operating below 861 MHz after realignment is completed. These procedures should address, at a minimum the: (a) steps to be followed and the timelines to be supported, (b) requirements for equipment calibration, (c) requirements for documentation, (d) obligations of all parties to participate in good faith, (e) obligations of all contributors to an interference problem to contribute both time and resources to the solution and to provide the specific data necessary to conclusive analysis and interference mitigation, and (f) provisions to prohibit frivolous complaints and complaints made in bad faith.

b. Measurement Criteria. To facilitate implementation of the post-realignment interference protections set forth herein, the Consensus Parties also recommend that the revised Best Practices Guide define the specific measurement procedures and statistical analysis to be applied to any interference complaint. These techniques must be traceable to standard statistical and propagation-prediction techniques already in use by all system designers in the 851-895 MHz range. The Revised Best Practices Guide should contain provisions to assure that measurement procedures are applied equally to all signals involved in any interference complaint; standard statistical methodology should also be set forth and required to be applied to all measurements to arrive at the weighted measurements for the desired signal and all potential interferors.

3.1 Initial notification. A licensee in the 851-861 MHz range seeking the participation of licensees in the 861-895 MHz range in evaluating an alleged interference occurrence shall post a

standard interference complaint to an e-mail box operated jointly by the operators above 861 MHz. This complaint shall contain (a) the specific geographical location where the interference is occurring in terms of latitude and longitude, (b) the FCC license information for the offended party, and (c) the offended party's point of contact ("POC") for technical information.

3.2 Initial response. All operators above 861 MHz shall respond to the complaint within two business days and shall indicate whether they have equipment operating within 5000 feet of the location of the alleged interference. This equipment may be either cell site equipment or repeaters.

3.3 On-site analysis. The complaining entity's technical POC shall contact the potential contributors and arrange for an on-site analysis to take place within five business days (or later, at the discretion of the complaining entity). All potential contributors to the interference shall support the analysis effort. On the agreed-on day the complaining entity's technical POC and the POCs from the potential contributors shall conduct the analysis according to the previously-defined procedures as established in the Revised Best Practices Guide.

3.5 Mitigation steps. When the analysis results show that (a) the system being interfered with meets the minimum signal level requirements of Sections 2.1.1 and 2.1.2 and (b) the potential contributors are interfering with the system in question, the contributors to the interference shall correct the interference per industry-standard mitigation techniques. The Revised Best Practices Guide will reflect the current state of industry knowledge. If the analysis shows that a suspected contributor is not part of an interference problem, the suspected contributor will be relieved of responsibility for correcting interference at that site. If the analysis shows that a suspected contributor is causing interference, that entity shall contribute to resolving the interference. The resolution of the interference shall be documented and copies provided to each contributor and the complaining agency.

3.6 Division of responsibility for mitigation. Contributors shall divide responsibility for mitigating interference according to procedures developed in the Revised Best Practices Guide.

3.7 Active management. If mitigation of interference at a site requires that contributors make changes which are easily reversed (*e.g.,* changing of transmitter frequencies to avoid intermodulation ("IM") product formation on a particular frequency, or a reduction in on-street power) then the contributor making the change shall coordinate both with the other contributors and the complaining entity before making further changes to the site.

3.8 Interference from equipment not belonging to CMRS providers. If the interference is found to be caused by something other than the equipment belonging to a CMRS provider (e.g. a bi-directional amplifier ["BDA"] installed by a 3rd party), the owner of the equipment shall be responsible for mitigating the interference.

4.0 Equipment and System Standards. For long-term interference mitigation, the Consensus Parties propose that the Commission adopt the following testing and receiver quality standards:

4.1 Receiver Testing Standards. Specifications for, and evaluations of, public safety land mobile receivers are currently based on TIA standards. These standards are designed to evaluate the receiver at signal levels very close to the receiver noise floor. These standards were adequate where receivers would not be exposed in normal operation to any signals that rose far above the noise floor. The RF environment has changed, however. As the Commission stated in its Notice of Proposed Rulemaking,[3] on-street signal levels from CMRS and other operators can approach or even exceed –30 dBm, both in the spectrum allocation for which the receiver was designed *and* in adjacent allocations.

To account for this change in the RF environment, receiver testing standards shall be expanded to address at least the following:

a. Standardized, precise, repeatable definition of receiver overload, and a test to determine the composite RF level where this takes place.

b. Change in characterization of all interference rejection specifications to address adjacent-channel interferers having (a) discrete constant-amplitude sidebands, (b) essentially constant-amplitude spectral energy distribution across the adjacent channel, rather than discrete sidebands, (c) discrete sidebands with amplitude variations of no less than 10 dB, and (d) constant spectral energy distribution across the adjacent channel with an amplitude variation of no less than 10 dB.

c. Characterization of 3rd-order IM product growth as contributor signals rise to at least –25 dBm per contributor in 5 dB steps.

d. Characterization of 5th-order IM product growth as contributor signals rise to at least –25 dBm per contributor in 5 dB steps

e. Characterization of front-end filter responses to signals in adjacent allocations. This characterization should be a curve rather than a single number. For 800 MHz receivers, the characterization should extend upward from the top of the public-safety allocation to no less than 940 MHz. For 700 MHz receivers, the characterization should extend downward by a similar amount. If the characterization changes with temperature, curves should be provided for no less than 3 equally-spaced points across the temperature spectrum for which the radio is rated.

The Consensus Parties recommend that the Commission's amend its Rules to establish the dates by which (a) manufacturers shall be required to satisfy these characterization standards, and (b) the penalties to be imposed on manufacturers for failing to provide this information

4.1.1 Receiver quality standards. For long-term interference mitigation, the Consensus Parties propose that the Commission adopt the following receiver quality standards:

---

[3] *NPRM* at para. 77

a. Receivers that meet the existing TIA Class A receiver specifications will receive full protection down to a desired signal level as outlined in Sections 2.1.1 and §2.1.2

b. Any receiver, whether existing or new, whose specifications fail to meet the Class A receiver specifications will be protected to a higher desired signal level than that outlined in Section 2.1.1and Section 2.1.2. The amount of increase above the level indicated in Sections 2.1.1 and Section 2.1.2 will vary depending on the interference mechanism in question and will be determined by the amount of desired signal increase necessary to restore the receiver in question to the same C/I+N ratio as a Class A receiver in the same interference environment.

c. Since the post-rebanding environment, unlike the current environment, sets the stage for receivers serving users in the 851-861 MHz range to be designed to filter out signals in adjacent allocations, and since such filtering will greatly lessen the likelihood that public safety receivers will experience interference from stronger signals in adjacent allocations, the Consensus Parties recommend that the FCC establish through regulation a requirement for rejection of signals in adjacent allocations with numerical targets and schedules for implementation. This regulatory target and schedule should be established after consultation with manufacturers *and industry experts,* but should set the expectation that (a) the rejection provided by current 800 MHz-only receivers is insufficient and will not be acceptable and (b) any receiver whose measured rejection of adjacent-allocation signals is worse than that provided by 800 MHz-only receivers will receive less consideration for interference protection than that provided herein, with specifics determined on a case-by-case basis by the difference in performance between the receiver in question and current 800 MHz-only receivers.

4.1.2 Out-of-band emissions (OOBE) for base station transmitters in the 861-895 MHz band. The Consensus Parties recommend that the Commission amend its rules to require (a) all base station transmitters and associated combining equipment operating between 861-895 MHz suppress OOBE noise by no less than 43 + 10 log (P) dBc, where P is average transmitter power in watts, at the edges of the spectrum allocation for the transmitter in question and (b) the OOBE noise allowed in (a) be further reduced by (1) no less than 15 dB at 860.0 MHz, (2) no less than 30 dB at 859.5 MHz, and (3) no less than 45 dB on all frequencies between 851 and 859 MHz. The FCC should also clarify the measurement bandwidth for the OOBE measurement.

4.1.3 Requirement to consider current RF environment. The Consensus Parties recommend that the Commission amend its rules to require that (a) new RF communications hardware systems and system designs using licensed spectrum in the 851-861 MHz range must account for the existence of wireless communications systems in adjacent allocations that may use interference-limited network architectures with relatively strong composite on-street signal strengths expected for such deployments, and that systems to be operated in the 851-861 MHz range shall be designed to operate successfully in the presence of such deployments. The Consensus Parties further recommend that the Commission, as part of this regulation activity, and in conjunction with the receiver quality changes in 4.1.1c, solicit comment from equipment manufacturers, system designers, and system operators on methods, transition schedules, and necessary rule changes (e.g., modifying the 40 dBu contour limit) to achieve this regulatory requirement,

bearing in mind that the changes made must be the minimum necessary to achieve the regulatory goal, without forcing existing operators in the 851-861 MHz allocation to implement interference-limited designs themselves. The intent of this recommendation is to require equipment manufacturers, system designers, and system operators to take full advantage of the potential for enhancing interference rejection afforded by the removal of the interleaving between noise-limited and interference-limited operations in the 851-861 MHz range while not requiring operators in that range to switch to interference-limited designs themselves.

a. Bi-Directional Amplifiers ("BDAs"). The Commission should modify Section 90.219 of its Rules to permit additional flexibility in the use of BDAs to solve localized coverage problems in light of the deinterleaving of the 851 – 861 MHz spectrum.

APPENDIX G

BORDER AREA REALIGNMENT

Mexico Border Area

1. Current Allocation

In the Land Mobile Radio Band, the U.S./Mexican Border Area is defined as the area within 110 kilometers from the U.S./Mexico Border and licensees operate on channel centers 12.5 kHz "offset" from the U.S. non-Mexican Border Area channels. Between channels 1-600, the spectrum is divided between the U.S. and Mexico, with each side being allocated 300 channels. In this area, Mexican licensees are the primary licensees on channels 1-201. U.S. licensees are the primary licensees between channels 202-400 with SMR, Public Safety, and B/ILT allocations interleaved therein. From channels 401-600, U.S. channels alternate with Mexican primary channels. Channels 401-600 are also interleaved fairly equally amongst SMR, B/ILT and Public Safety licensees. In the NPSPAC allocation (866 - 869 MHz) (channels 601-720), the U.S. and Mexico are allocated alternating blocks of channels. The U.S. NPSPAC region is allocated 63 (25 kHz equivalent) channels. The Mexican NPSPAC band is allocated 56 (25 kHz equivalent) channels. U.S. licensees also make use of Mexican primary channels on a secondary basis either pursuant to power limitations at the border specified by Treaty, or through international sharing agreement with licensees on the other side of the Border approved by each affected government. *See* attached Slide G-1.

2. Proposed Reallocation

Nextel would vacate its licensed spectrum in channels 202-400. Other incumbent SMR, B/ILT, Public Safety licensees would relocate, as necessary, from non-public safety allocated channels between 202-400 to allow relocation of U.S. NPSPAC licensees and from channels 401-600 to accommodate the relocation of Nextel operations. These incumbents would be relocated to Nextel's vacated spectrum in the interleaved area. NPSPAC licensees would move to the lowest portion of the U.S. allocated 800 MHz band interleaved with existing public safety systems to allow the NPSPAC allocation to remain unchanged as much as possible. The first 92 channels would be exclusively public safety (NPSPAC interleaved with existing public safety channels). The remaining interleaved area between channels 293-400 would remain interleaved with incumbents and relocated licensees in the band – but with no cellularized operations. Nextel would be relocated above 861 MHz solely to the 100 U.S. channels between channels 401-600 and the 63 U.S. (25 kHz equivalent) allocated NPSPAC channels – which are both interleaved with Mexico. *See* attached Slide G-2. Secondary use by United States licensees of Mexican primary channels would continue in the Border Area, although in some cases, the specific secondary channel use may need to be changed as necessitated by Border Area realignment.

Based on a sample realignment study by the Consensus Parties, in certain areas of the U.S./Mexico border (*e.g.,* San Diego), it may be possible to create a guard band of approximately 1 MHz adjacent to the cellularized block. Given the spectrum-constrained status of the border area, a larger guard band can be created only by relocating more incumbent public safety licensees.

3. Certain U.S. – Mexico Border Area Cities May Require a Dividing Line Above 861 MHz for Cellularized Operations.

In a few U.S. – Mexico Border Area markets, Nextel may not control sufficient spectrum to relocate all existing incumbents below 861 MHz to create a non-cellularized block and a cellularized block as proposed above. For example, in Yuma, Arizona, Nextel controls approximately 2 MHz of spectrum at 800 MHz. In those limited situations where all incumbent non-cellular licensees cannot be accommodated below 861 MHz, the Consensus Parties propose that the Commission allocate more channels for non-cellularized use for incumbent high-site B/ILTs and SMRs. This would, of course, reduce the size of the cellularized block, but would minimize the number of required relocations. In any case, the demarcation point of 861 MHz will be maintained for *public safety* licenses and operations.

Canada Border Areas

1. Current Allocation

In the Land Mobile Radio Band, the U.S./Canada Border Area is defined as an area at least 100 kilometers from the U.S./Canada Border; in some areas it extends to 140 kilometers from the Border. There are eight Border Regions across the shared U.S./Canada Border. For example, Region 5 is the Border Area that encompasses the Northwestern U.S. including Seattle. Border Region 3 is the area that includes Detroit and Cleveland. Border Region 2 includes Buffalo, Rochester and Burlington, VT.

Each Border Region has a different U.S. allocation, reflecting the division of channels between the U.S. and Canada. This creates hardships for U.S. licensees who have less spectrum available in these Border cities than in the remainder of the U.S. Attached are Slides G-3, G-5, G-7, G-9 that show the Border Area allocations as they exist today for each U.S. – Canadian Border Region.

2. Proposed Reallocations

Attached are Slides G-4, G-6, G-8, and G-10 that show the proposed reallocations in the U.S./Canada Border Regions. The Consensus Parties propose to reallocate the Border Area Regions as consistent as possible with the Consensus Plan. The Border Area should be reallocated to relocate all incumbent, non-public safety licensees from the U.S. channels in the lowest portion of the 800 MHz band to allow the relocation of the NPSPAC channels, which can be done either by interleaving incumbent public safety licensees and the NPSPAC licensees, or by relocating incumbent public safety licensees within the lower block of spectrum. Public Safety incumbents and NPSPAC licensees will be consolidated into a contiguous block of spectrum, separated from cellular operations and other incumbent operators by the Canadian primary channel allocation, which ranges from 9-21 MHz. This will provide significant interference protection from cellular operations.

Relocated SMR and B/ILT incumbents from this lower portion of the 800 MHz band would be relocated to channels vacated by Nextel in the upper portion of the 800 MHz band. While this will require additional incumbent relocations, the probability of interference will be significantly lessened if incumbent B/ILT licensees that are currently in the upper-200 band are segregated from low-site, low-power cellularized operators. Therefore, the reallocation for each Region implements this guiding principle and reallocates the band accordingly. The reallocation proposal is not based on the original allocations of spectrum, but on a licensee's current usage of spectrum taking into account years of inter-category sharing, etc. In addition, secondary use of Canadian primary channels by United States licensees would continue to be permitted (and encouraged) in the Border Area.

There are some Region specific issues:

a. Region 3 (Detroit) (Slides G-5 & G-6) – The U.S. currently allocates 216 channels to public safety services. If all public safety licensees are relocated to the lowest portion of the 800 MHz band, only 210 channels are available. Therefore, the Consensus Parties propose that the six public safety channel licensees should be relocated at the lowest portion of the non-cellularized portion of the 800 MHz band, in which case they would not maintain as much separation from the cellularized block as other public safety licensees but they would located below 861 MHz.

b. Region 7 (Slides G-9 & G-10) – Region 7 provides an additional 40-kilometer protective zone that borders Regions 1-8 to the south. It is allocated entirely to the U.S., with a different allocation than the rest of the U.S. and certain restrictions on licensee operating power. The Consensus Parties submit that with realignment of the 800 MHz band, an alternative spectrum plan in Region 7 is no longer warranted. Therefore, the Consensus Parties recommend that existing Region 7 licensees be realigned consistent with the 800 MHz alignment plan for the rest of the United States – NPSPAC at the bottom of the 800 MHz band, incumbent public safety, B/ILT and high-site SMRs below 861 MHz and cellularized SMR licensees above 861 MHz. Region 7 licensees should also be required to operate pursuant to any necessary power limitations. *See* Slides G-9 and G-10.

c. While this proposed modification of the Region 7 allocation may appear at first glance to reduce the amount of spectrum currently designated for public safety licensees, that is not the case. Although allocated for public safety use, the NPSPAC spectrum allocation in Region 7 is not currently being utilized. Because of the location of the Region 7 Border Area, much of the allocated spectrum is currently blocked from future licensing by existing licensees either in the adjacent Border Area or in the adjacent non-Border Area in the remainder of the U.S. The Consensus Parties have examined the current spectrum usage in Region 7 and believe that when Nextel vacates the new

non-cellularized portion of the 800 MHz band below 861 MHz, significant spectrum in Region 7 will become available where it could not be used today due to insufficient co-channel separation from licensees in non-border area or the adjacent border areas. The proposed realignment retains this spectrum for future public safety use. Thus, at the end of realignment, including the incorporation of the current Region 7 allocation into the new realignment for the non-border U.S., public safety communications applicants will have access to as much spectrum, if not more, than they are able to use today.

3. Canadian, Mexican and United States Mutual Aid channels

The Consensus Parties recognize that reallocation and realignment of the NPSPAC frequencies to the lower portion of the 800 MHz band will necessitate reexamination and possibly modification of the mutual aid channels shared between the United States and Canada and the United States and Mexico respectively.[1] The Consensus Parties submit, that any existing mutual aid channel arrangements between the United States and Canada can be accomplished in each of the Canadian Border Regions without much difficulty because the new Border Area allocations in each Region will allow for a consistent allocation of public safety spectrum between at least channels 1-120, which will enable the two countries to redesignate the five particular mutual aid channels from the old NPSPAC band to the new public safety band.

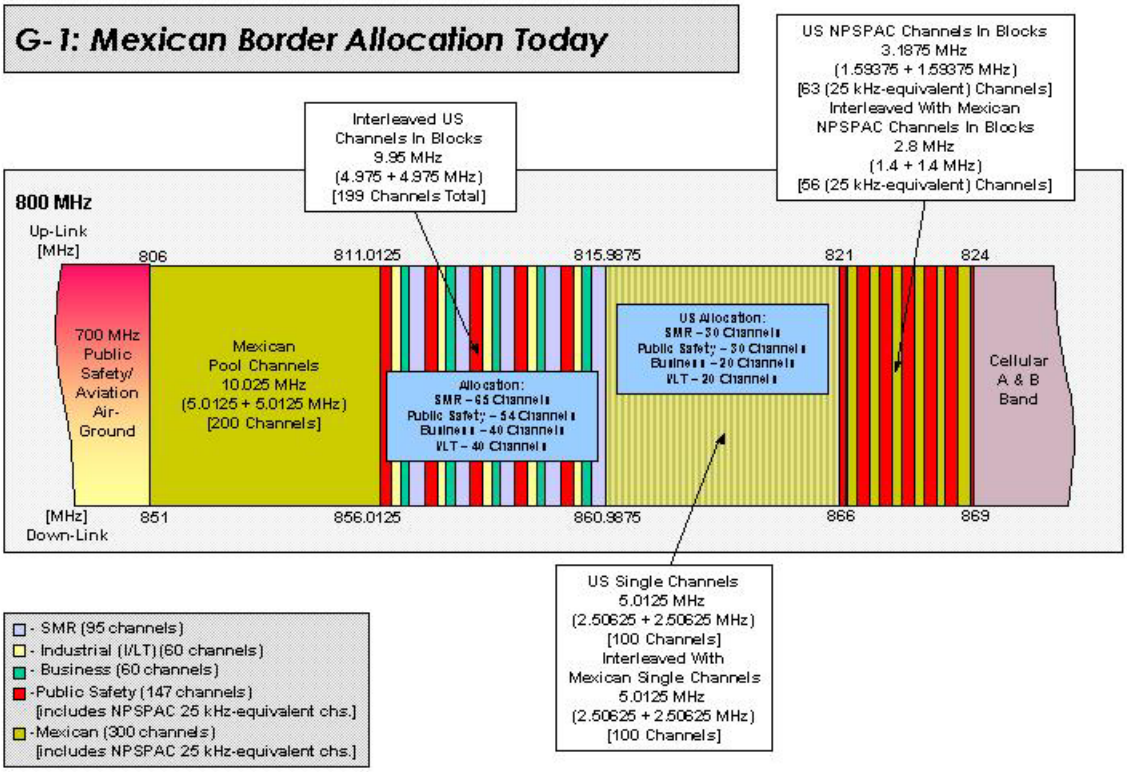
Using those same five mutual aid channels between the United States and Mexico, however, will require more effort. Under the existing allocation of spectrum between the two countries, Mexico is allocated the first 200 channels. As a result, the newly designated five mutual aid channels in channels 1-120 cannot be implemented for consistent use with Mexico without the concurrence of the Mexican government.[2] One possible solution would be for the United States and Mexico to redesignate five mutual aid channels selected solely from the United States allocated spectrum in channels 201-400. Under this approach, United States licensees would be assured of having access to five mutual aid channels across the Border into Mexico. For any public safety user in the Mexican Border Region who wishes to use mutual aid channels when traveling to the rest of the United States, their radios can use the newly designated mutual aid channels in the lowest portion of the 800 MHz band. In either case, however, because NPSPAC relocations will not occur until Phase II of the 800 MHz realignment, the Consensus Parties believe that the public safety community and the respective governments have

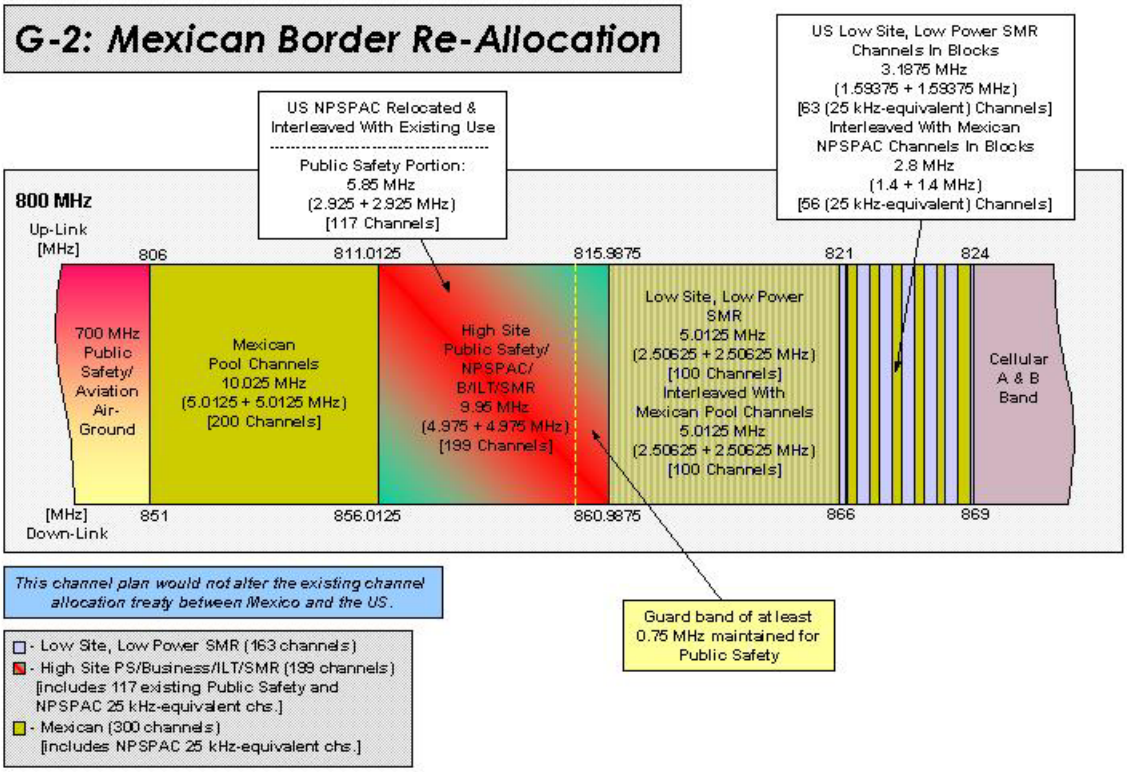
---

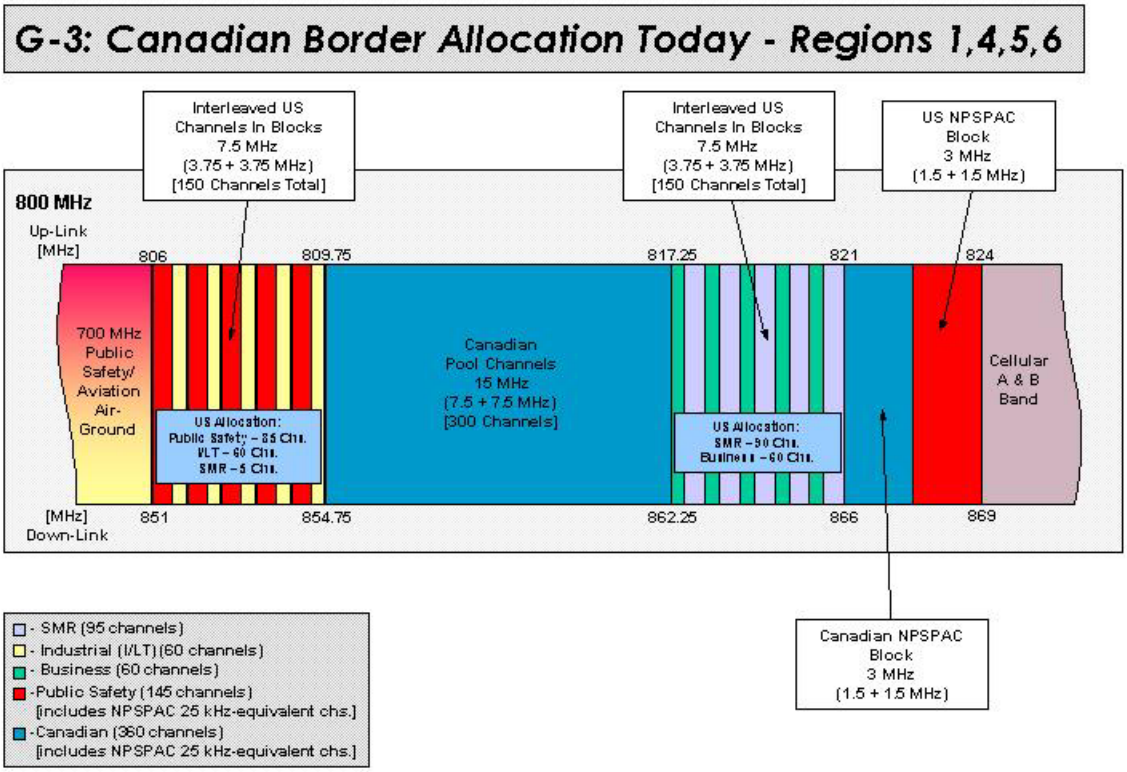
[1] Pursuant to Section 90.619(a)(2) and 90.619(c)(1) of the Commission's Rules, there are five mutual aid channels designated by the United States, Canada and Mexico for shared use in the case of emergencies in the Border Areas. These channels allow public safety representatives from both countries to communicate and coordinate their responses during emergencies that cross the border.

[2] Such channels could be used in the United States within the power flux density level specified at the border by the bilateral treaty. This would, however, be impractical for effective service near the U.S. – Mexican border.

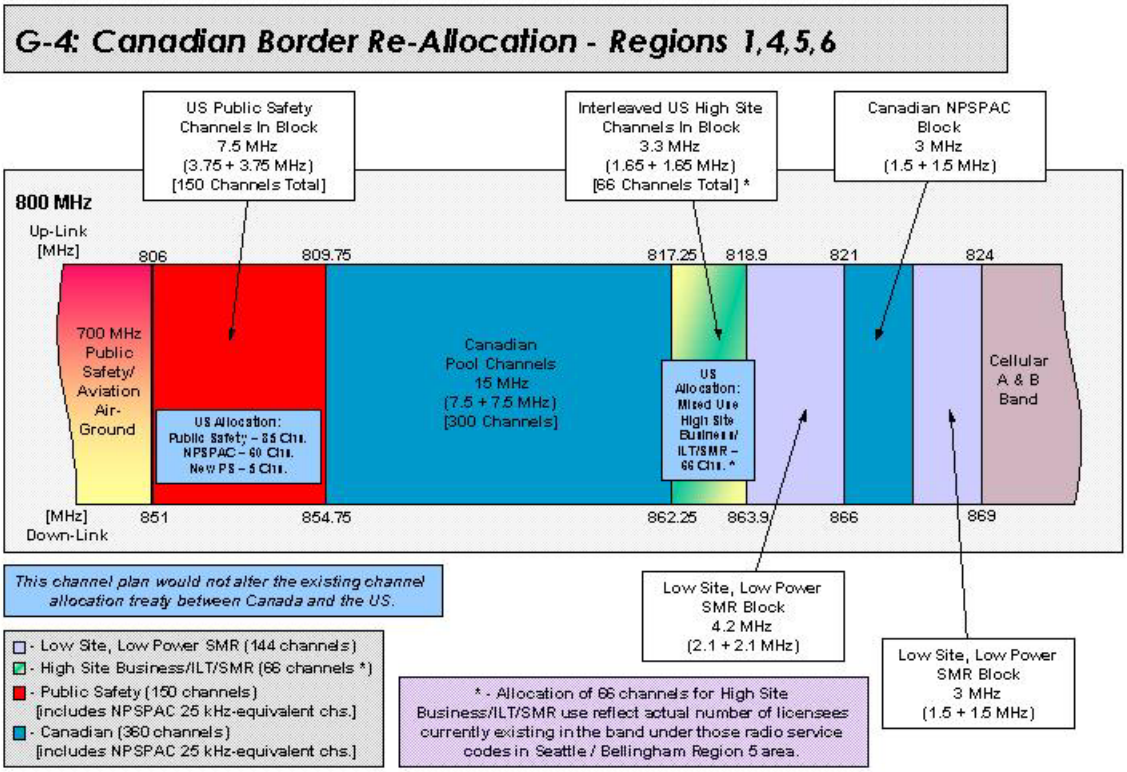
significant time to make modifications to the mutual aid channel designations in conjunction with realignment of the respective Border regions. Accordingly, this issue need not be conclusively resolved by a Report and Order in this proceeding.

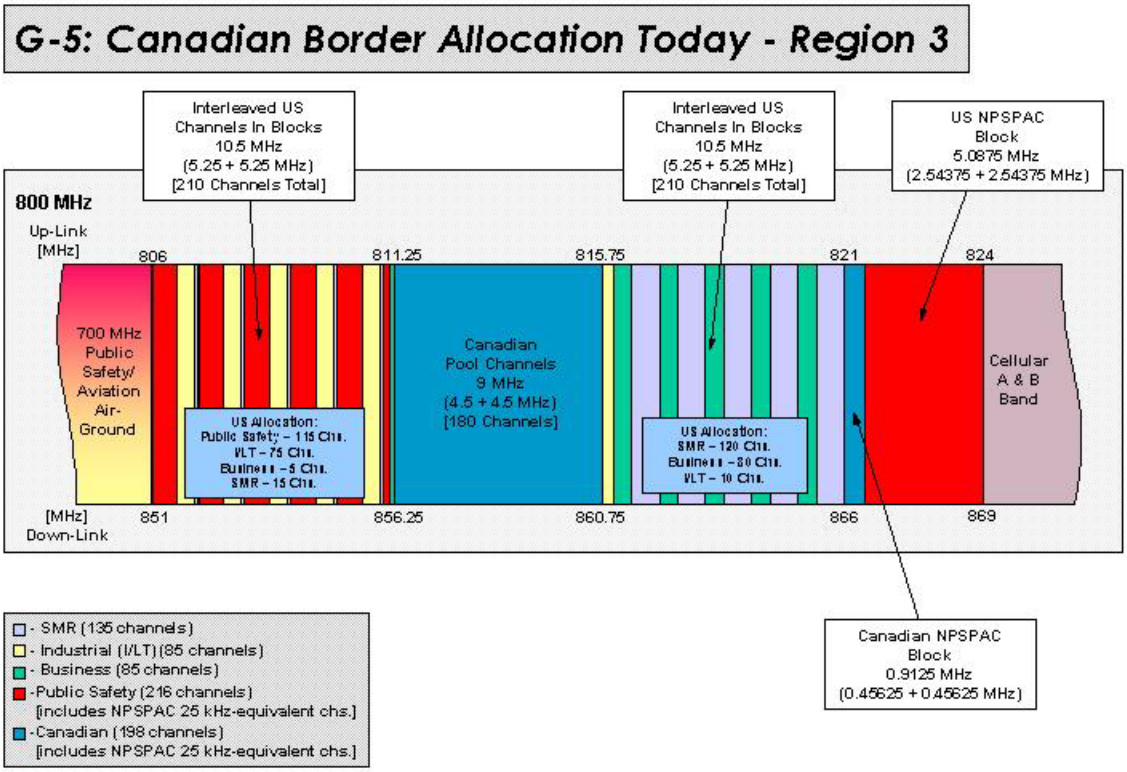

G-1: Mexican Border Allocation Today
US NPSPAC Channels In Blocks
3.1875 MHz
(1.59375 + 1.59375 MHz)
[63 (25 kHz-equivalent) Channels]
Interleaved With Mexican
NPSPAC Channels In Blocks
2.8 MHz
(1.4 + 1.4 MHz)
[56 (25 kHz-equivalent) Channels]
Interleaved US
Channels In Blocks
9.95 MHz
(4.975 + 4.975 MHz)
[199 Channels Total]
800 MHz
Up-Link
[MHz]
806
811.0125
815.9875
821
824
700 MHz
Public
Safety/
Aviation
Air-
Ground
Mexican
Pool Channels
10.025 MHz
(5.0125 + 5.0125 MHz)
[200 Channels]
Allocation:
SMR – 65 Channels
Public Safety – 54 Channels
Business – 40 Channels
VLT – 40 Channels
US Allocation:
SMR – 30 Channels
Public Safety – 30 Channels
Business – 20 Channels
VLT – 20 Channels
Cellular
A & B
Band
[MHz]
Down-Link
851
856.0125
860.9875
866
869
US Single Channels
5.0125 MHz
(2.50625 + 2.50625 MHz)
[100 Channels]
Interleaved With
Mexican Single Channels
5.0125 MHz
(2.50625 + 2.50625 MHz)
[100 Channels]
- SMR (95 channels)
- Industrial (I/LT) (60 channels)
- Business (60 channels)
- Public Safety (147 channels)
[includes NPSPAC 25 kHz-equivalent chs.]
- Mexican (300 channels)
[includes NPSPAC 25 kHz-equivalent chs.]


G-2: Mexican Border Re-Allocation
US NPSPAC Relocated & Interleaved With Existing Use
Public Safety Portion:
5.85 MHz
(2.925 + 2.925 MHz)
[117 Channels]
US Low Site, Low Power SMR Channels In Blocks
3.1875 MHz
(1.59375 + 1.59375 MHz)
[63 (25 kHz-equivalent) Channels]
Interleaved With Mexican NPSPAC Channels In Blocks
2.8 MHz
(1.4 + 1.4 MHz)
[56 (25 kHz-equivalent) Channels]
800 MHz
Up-Link [MHz]
806
811.0125
815.9875
821
824
700 MHz Public Safety/ Aviation Air-Ground
Mexican Pool Channels
10.025 MHz
(5.0125 + 5.0125 MHz)
[200 Channels]
High Site Public Safety/ NPSPAC/ B/ILT/SMR
9.95 MHz
(4.975 + 4.975 MHz)
[199 Channels]
Low Site, Low Power SMR
5.0125 MHz
(2.50625 + 2.50625 MHz)
[100 Channels]
Interleaved With Mexican Pool Channels
5.0125 MHz
(2.50625 + 2.50625 MHz)
[100 Channels]
Cellular A & B Band
[MHz] Down-Link
851
856.0125
860.9875
866
869
This channel plan would not alter the existing channel allocation treaty between Mexico and the US.
Guard band of at least 0.75 MHz maintained for Public Safety
- Low Site, Low Power SMR (163 channels)
- High Site PS/Business/ILT/SMR (199 channels) [includes 117 existing Public Safety and NPSPAC 25 kHz-equivalent chs.]
- Mexican (300 channels) [includes NPSPAC 25 kHz-equivalent chs.]

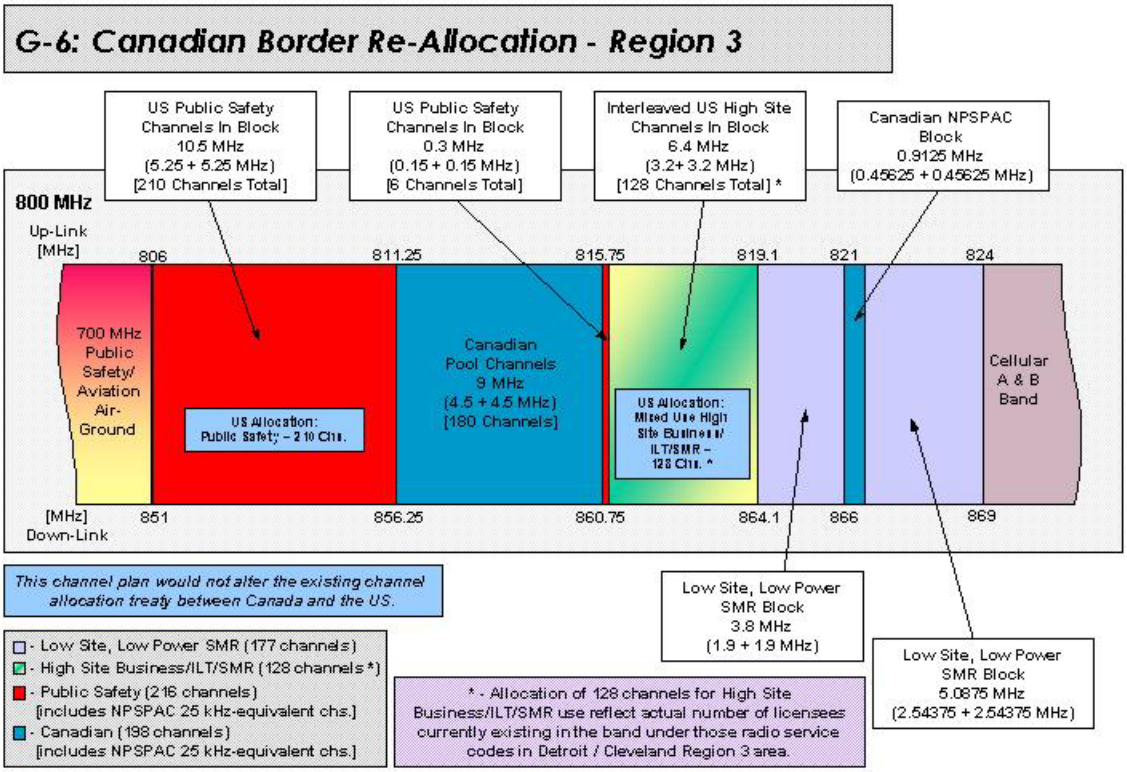

G-3: Canadian Border Allocation Today - Regions 1,4,5,6
Interleaved US Channels In Blocks 7.5 MHz (3.75 + 3.75 MHz) [150 Channels Total]
Interleaved US Channels In Blocks 7.5 MHz (3.75 + 3.75 MHz) [150 Channels Total]
US NPSPAC Block 3 MHz (1.5 + 1.5 MHz)
800 MHz
Up-Link [MHz]
806
809.75
817.25
821
824
700 MHz Public Safety/ Aviation Air-Ground
US Allocation: Public Safety – 85 Chs. VLT – 60 Chs. SMR – 5 Chs.
Canadian Pool Channels 15 MHz (7.5 + 7.5 MHz) [300 Channels]
US Allocation: SMR – 90 Chs. Business – 60 Chs.
Cellular A & B Band
[MHz] Down-Link
851
854.75
862.25
866
869
Canadian NPSPAC Block 3 MHz (1.5 + 1.5 MHz)
- SMR (95 channels)
- Industrial (I/LT) (60 channels)
- Business (60 channels)
- Public Safety (145 channels) [includes NPSPAC 25 kHz-equivalent chs.]
- Canadian (360 channels) [includes NPSPAC 25 kHz-equivalent chs.]

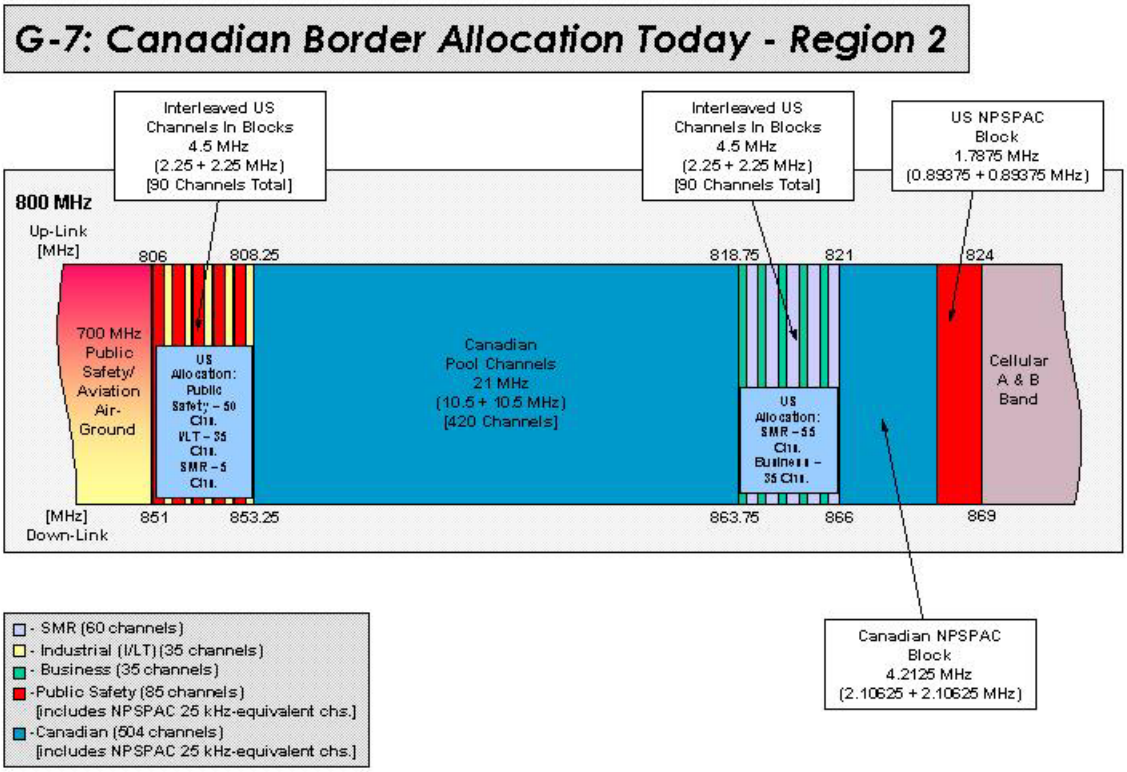
APPENDIX G
BORDER REGION REALIGNMENT PLAN



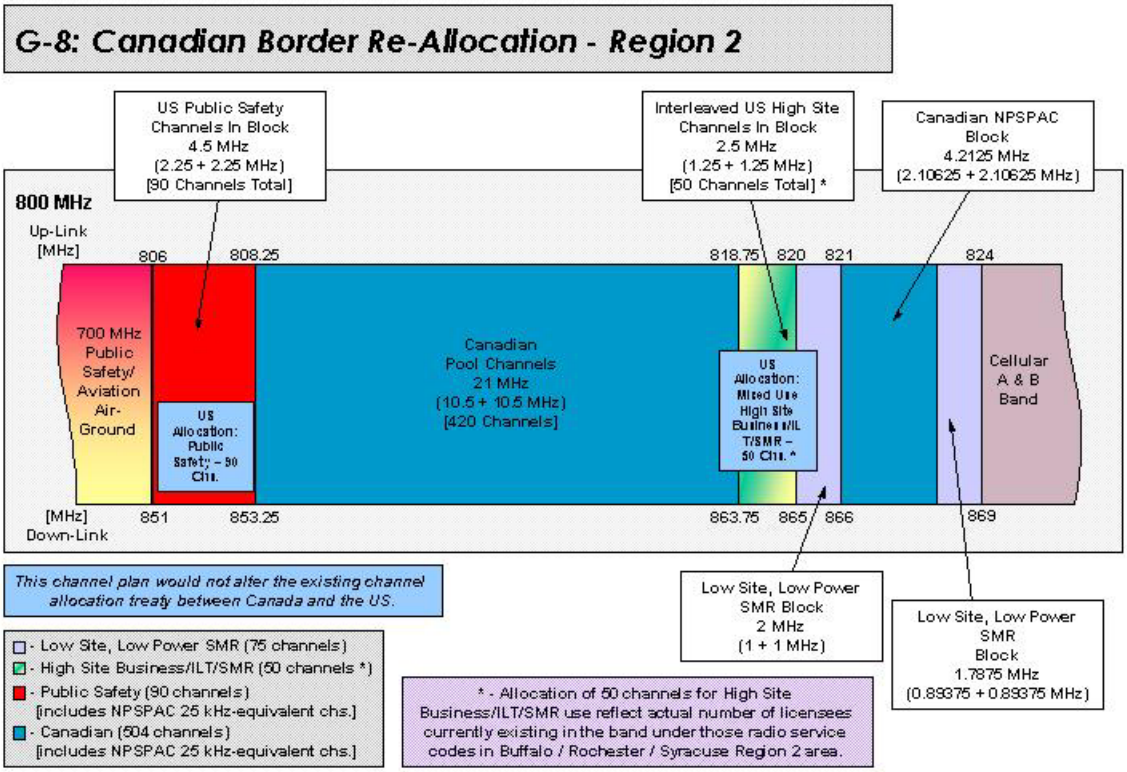

G-5: Canadian Border Allocation Today - Region 3
Interleaved US Channels In Blocks 10.5 MHz (5.25 + 5.25 MHz) [210 Channels Total]
Interleaved US Channels In Blocks 10.5 MHz (5.25 + 5.25 MHz) [210 Channels Total]
US NPSPAC Block 5.0875 MHz (2.54375 + 2.54375 MHz)
800 MHz
Up-Link [MHz]
806
811.25
815.75
821
824
700 MHz Public Safety/ Aviation Air-Ground
US Allocation: Public Safety – 115 Chs. VLT – 75 Chs. Business – 5 Chs. SMR – 15 Chs.
Canadian Pool Channels 9 MHz (4.5 + 4.5 MHz) [180 Channels]
US Allocation: SMR – 120 Chs. Business – 30 Chs. VLT – 10 Chs.
Cellular A & B Band
[MHz] Down-Link
851
856.25
860.75
866
869
- SMR (135 channels)
- Industrial (I/LT) (85 channels)
- Business (85 channels)
- Public Safety (216 channels) [includes NPSPAC 25 kHz-equivalent chs.]
- Canadian (198 channels) [includes NPSPAC 25 kHz-equivalent chs.]
Canadian NPSPAC Block 0.9125 MHz (0.45625 + 0.45625 MHz)

APPENDIX G
BORDER REGION REALIGNMENT PLAN

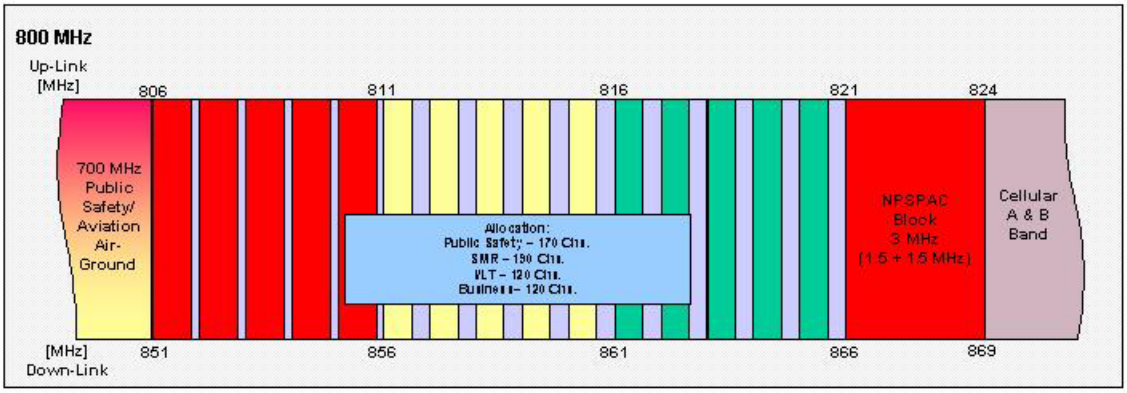



G-7: Canadian Border Allocation Today - Region 2
Interleaved US Channels In Blocks 4.5 MHz (2.25 + 2.25 MHz) [90 Channels Total]
Interleaved US Channels In Blocks 4.5 MHz (2.25 + 2.25 MHz) [90 Channels Total]
US NPSPAC Block 1.7875 MHz (0.89375 + 0.89375 MHz)
800 MHz
Up-Link [MHz]
806
808.25
818.75
821
824
700 MHz Public Safety/ Aviation Air-Ground
US Allocation: Public Safety – 50 Chs. I/LT – 35 Chs. SMR – 5 Chs.
Canadian Pool Channels 21 MHz (10.5 + 10.5 MHz) [420 Channels]
US Allocation: SMR – 55 Chs. Business – 35 Chs.
Cellular A & B Band
[MHz] Down-Link
851
853.25
863.75
866
869
Canadian NPSPAC Block 4.2125 MHz (2.10625 + 2.10625 MHz)
- SMR (60 channels)
- Industrial (I/LT) (35 channels)
- Business (35 channels)
- Public Safety (85 channels) [includes NPSPAC 25 kHz-equivalent chs.]
- Canadian (504 channels) [includes NPSPAC 25 kHz-equivalent chs.]

APPENDIX G
BORDER REGION REALIGNMENT PLAN

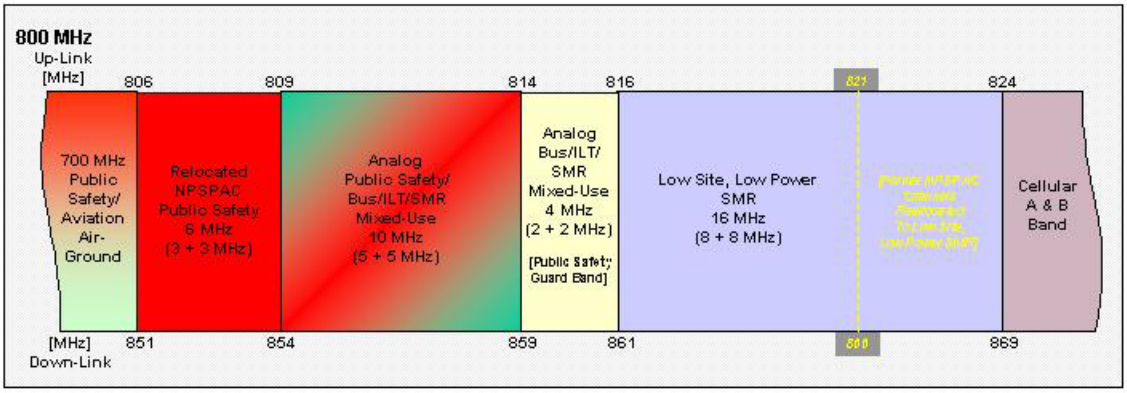


G-9: Canadian Border Allocation Today - Regions 7,8

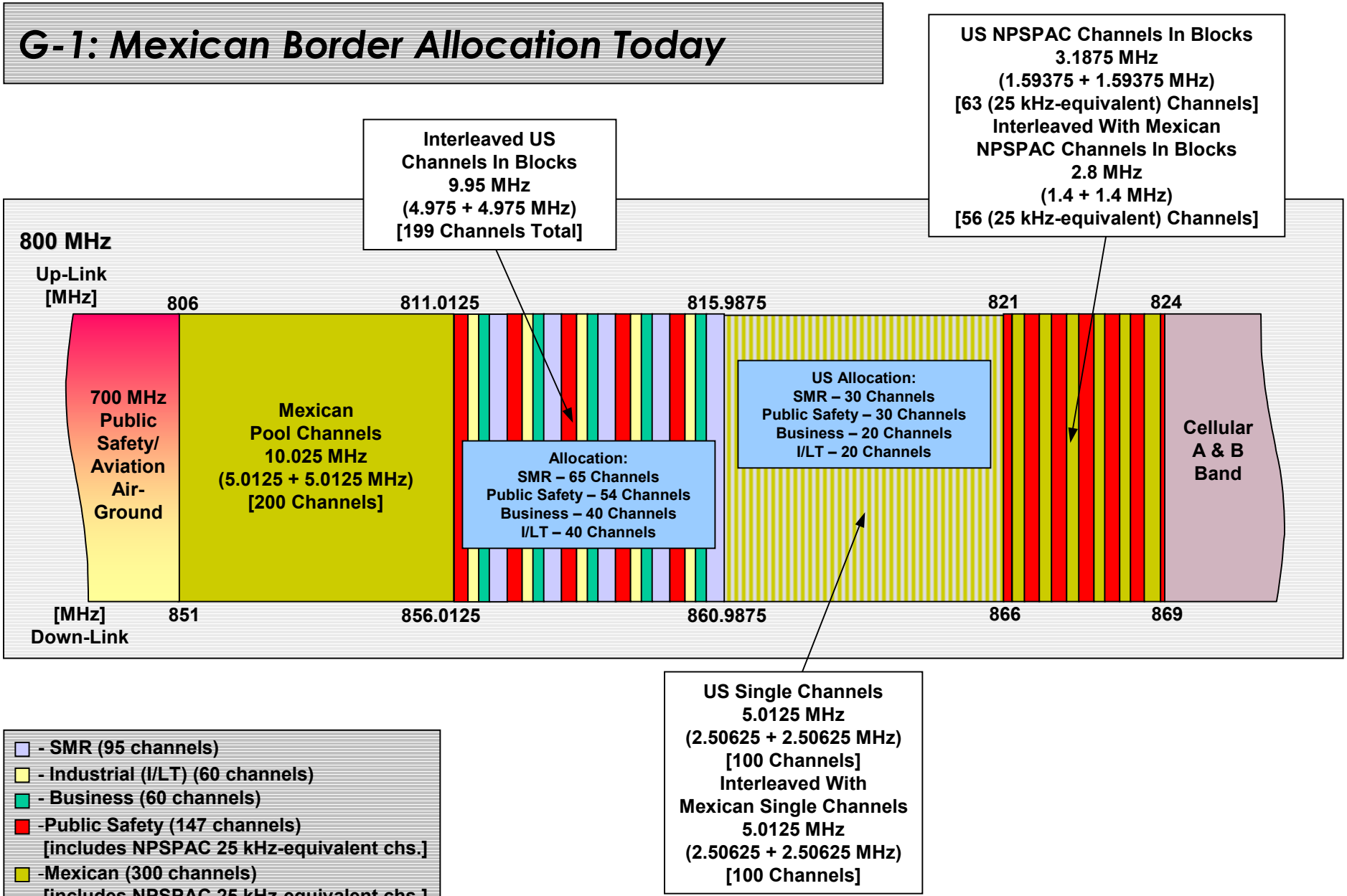


- SMR (150 channels)
- Industrial (I/LT) (120 channels)
- Business (120 channels)
- Public Safety (290 channels)
  (includes NPSPAC 25 kHz-equivalent chs.)

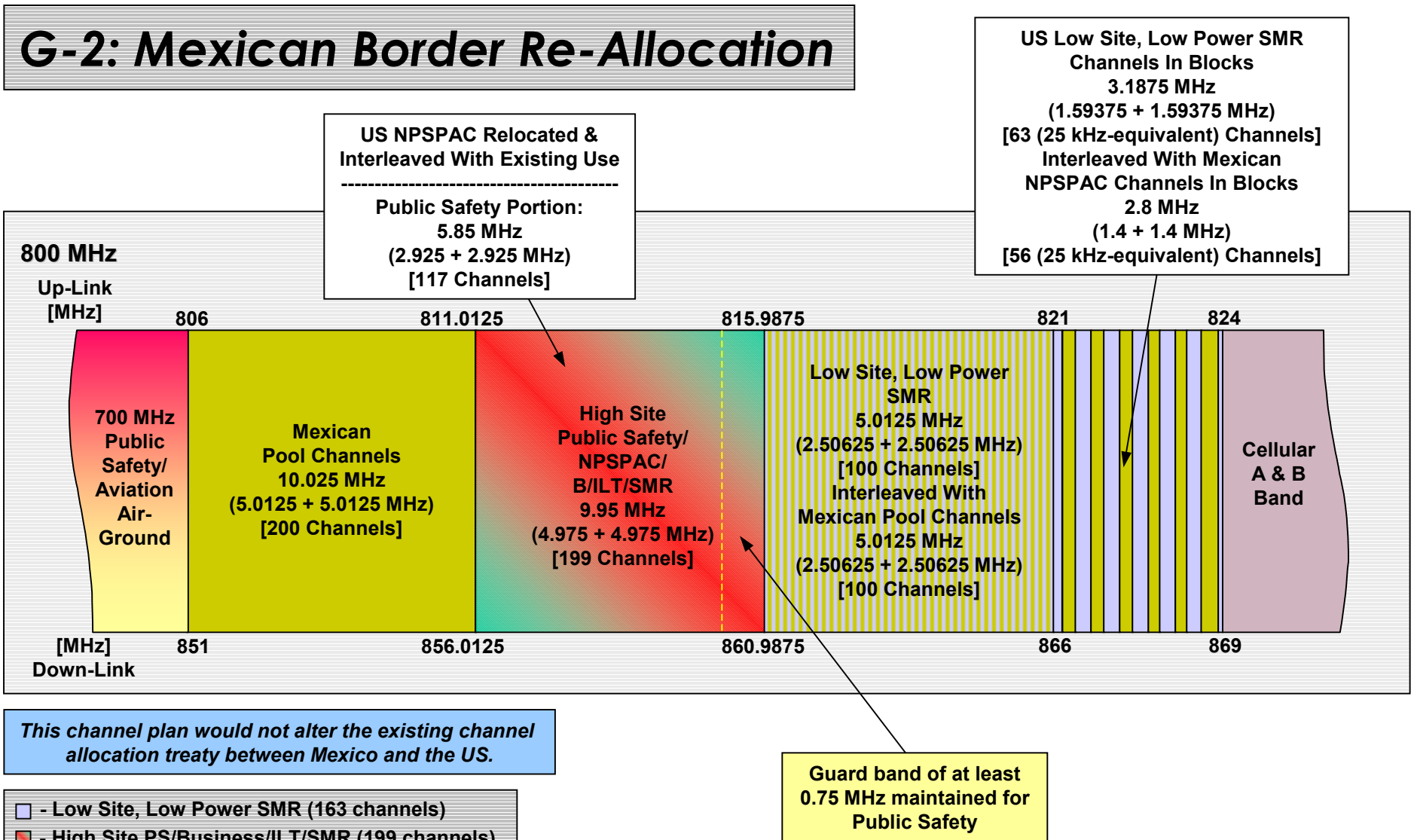
G-10: Canadian Border Re-Allocation - Regions 7,8



G-1: Mexican Border Allocation Today



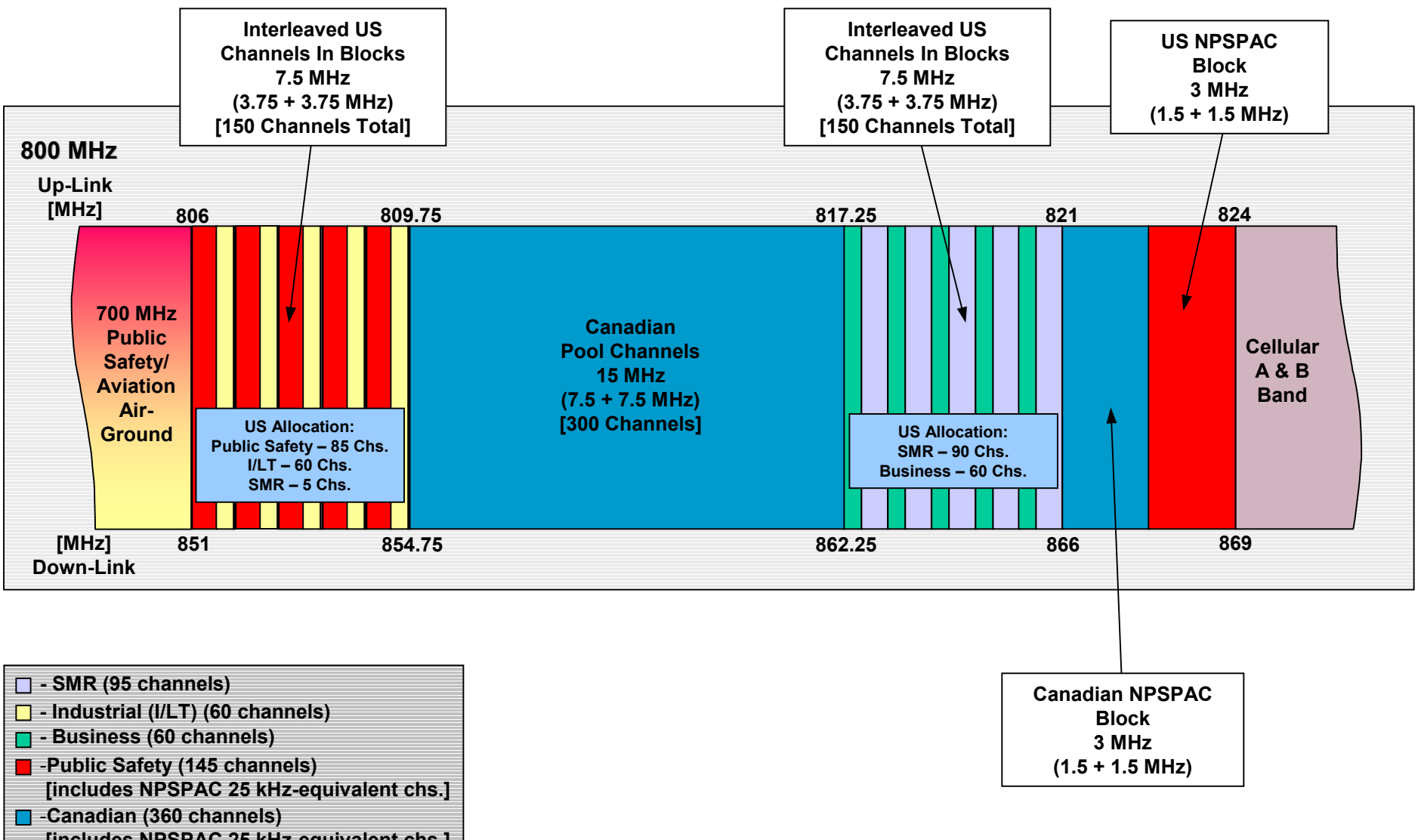
G-2: Mexican Border Re-Allocation



This channel plan would not alter the existing channel allocation treaty between Mexico and the US.

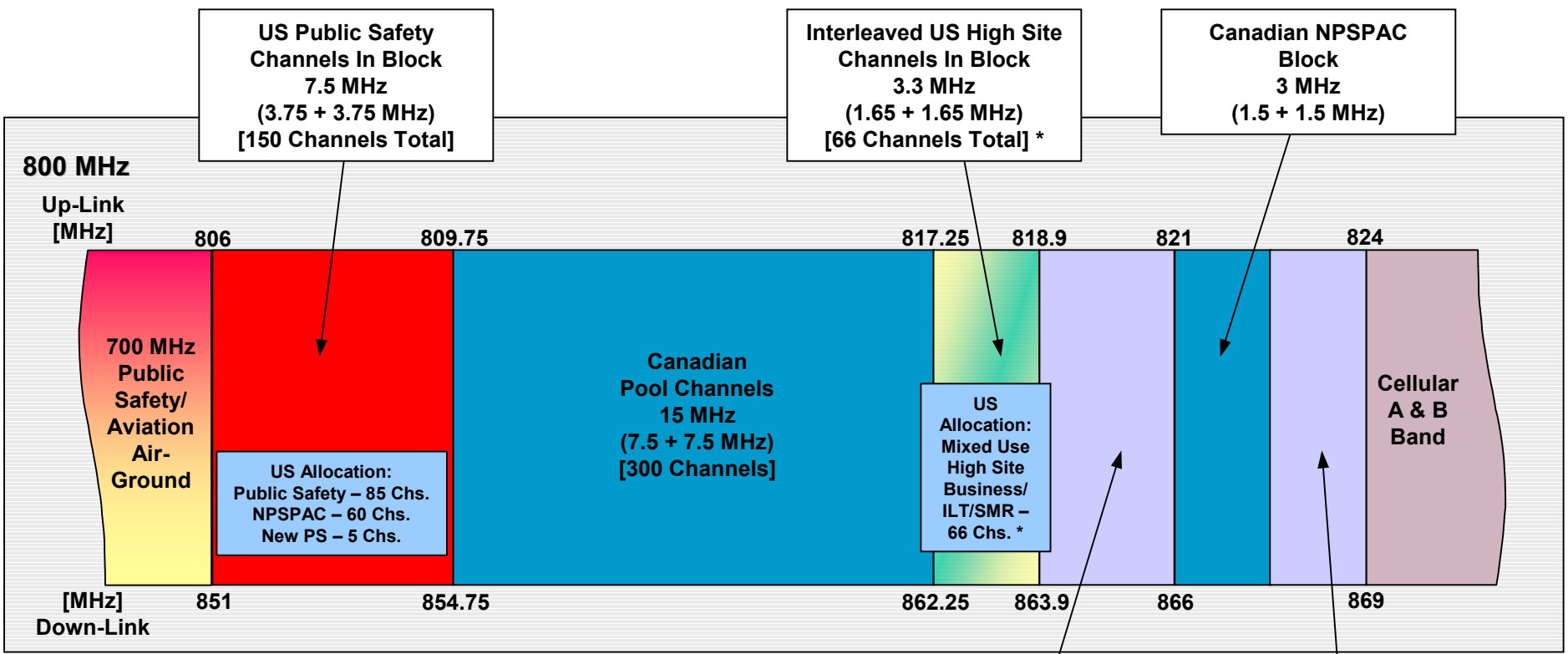
- Low Site, Low Power SMR (163 channels)
- High Site PS/Business/ILT/SMR (199 channels) [includes 117 existing Public Safety and NPSPAC 25 kHz-equivalent chs.]
- Mexican (300 channels) [includes NPSPAC 25 kHz-equivalent chs.]

G-3: Canadian Border Allocation Today - Regions 1,4,5,6



APPENDIX G
BORDER REGION REALIGNMENT PLAN

G-4: Canadian Border Re-Allocation - Regions 1,4,5,6



This channel plan would not alter the existing channel allocation treaty between Canada and the US.

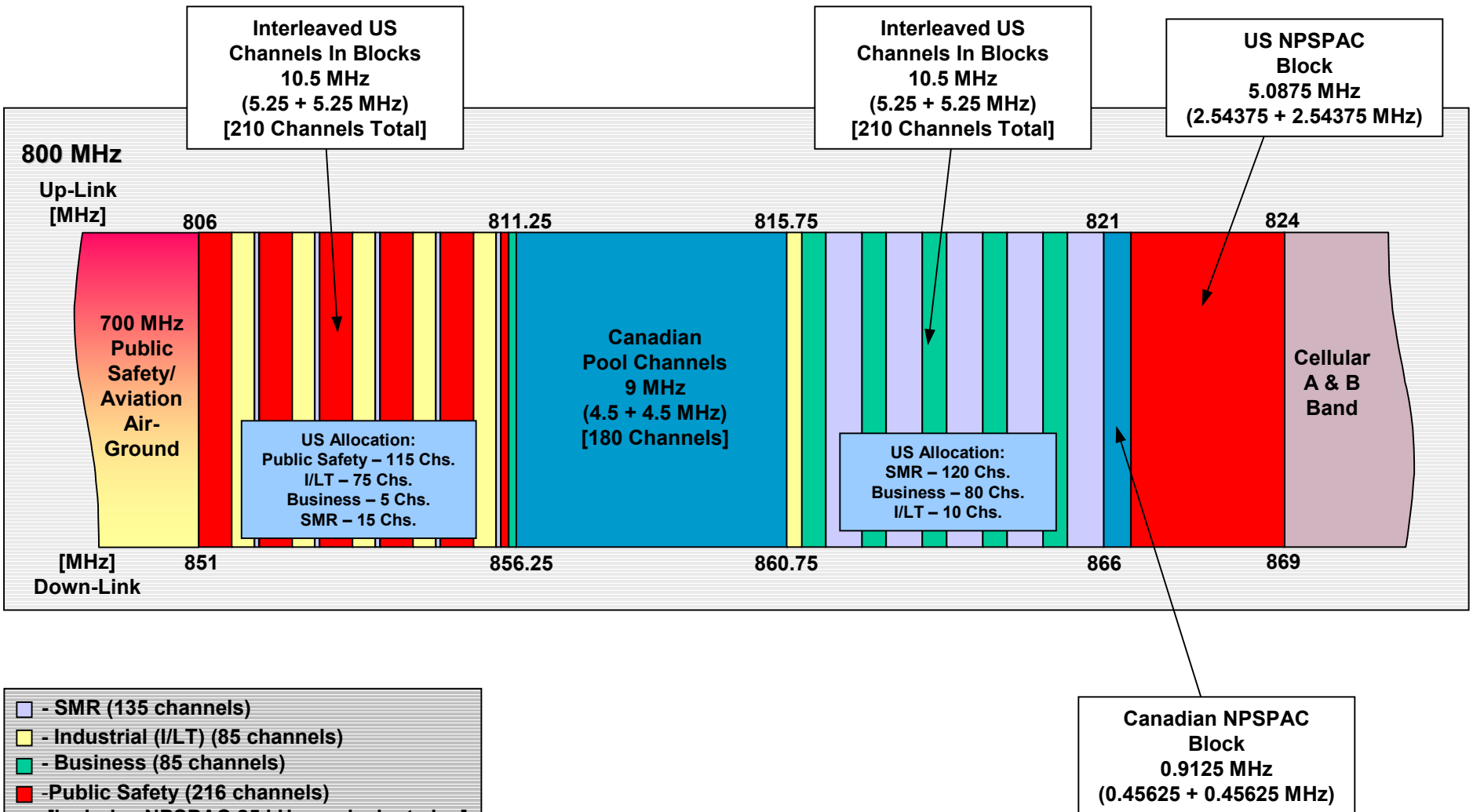
Low Site, Low Power SMR Block 4.2 MHz (2.1 + 2.1 MHz)

Low Site, Low Power SMR Block 3 MHz (1.5 + 1.5 MHz)

- Low Site, Low Power SMR (144 channels)
- High Site Business/ILT/SMR (66 channels *)
- Public Safety (150 channels) [includes NPSPAC 25 kHz-equivalent chs.]
- Canadian (360 channels) [includes NPSPAC 25 kHz-equivalent chs.]

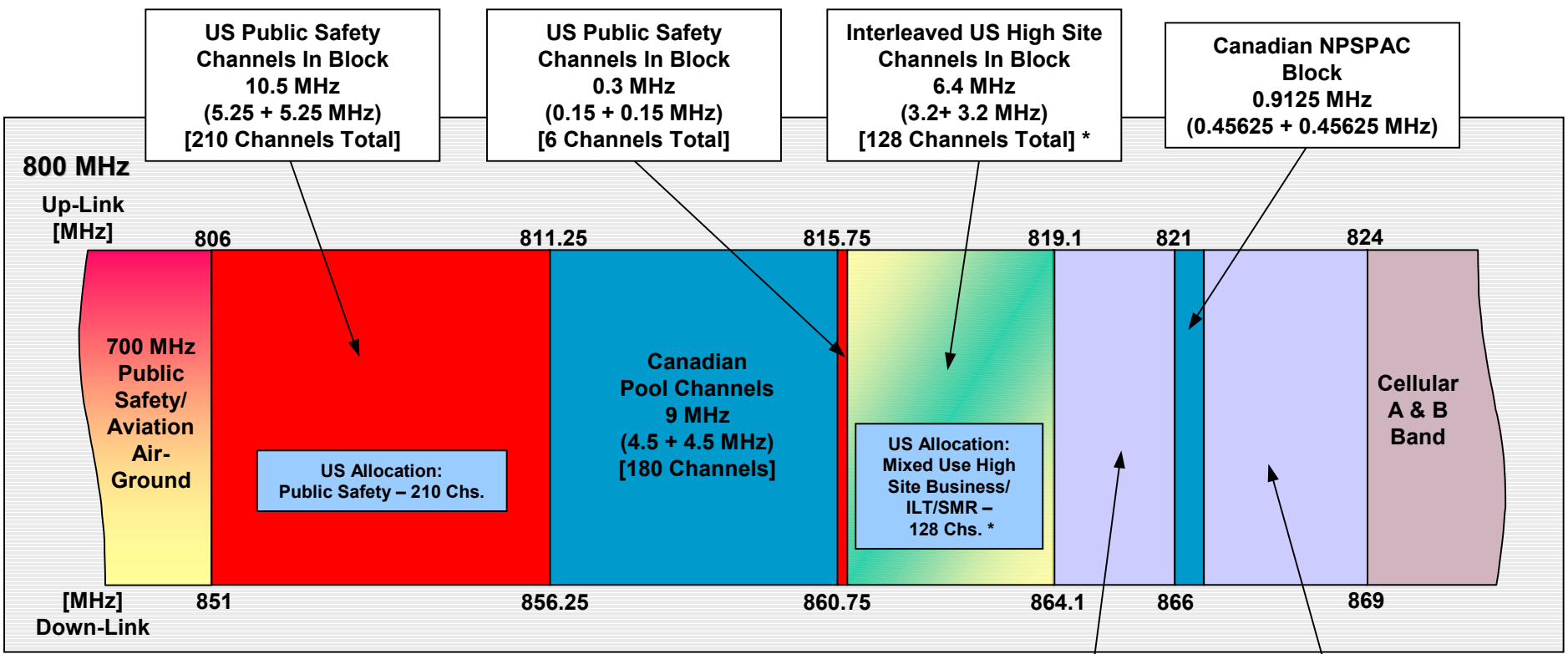
* - Allocation of 66 channels for High Site Business/ILT/SMR use reflect actual number of licensees currently existing in the band under those radio service codes in Seattle / Bellingham Region 5 area.

G-5: Canadian Border Allocation Today - Region 3



APPENDIX G
BORDER REGION REALIGNMENT PLAN

G-6: Canadian Border Re-Allocation - Region 3



This channel plan would not alter the existing channel allocation treaty between Canada and the US.

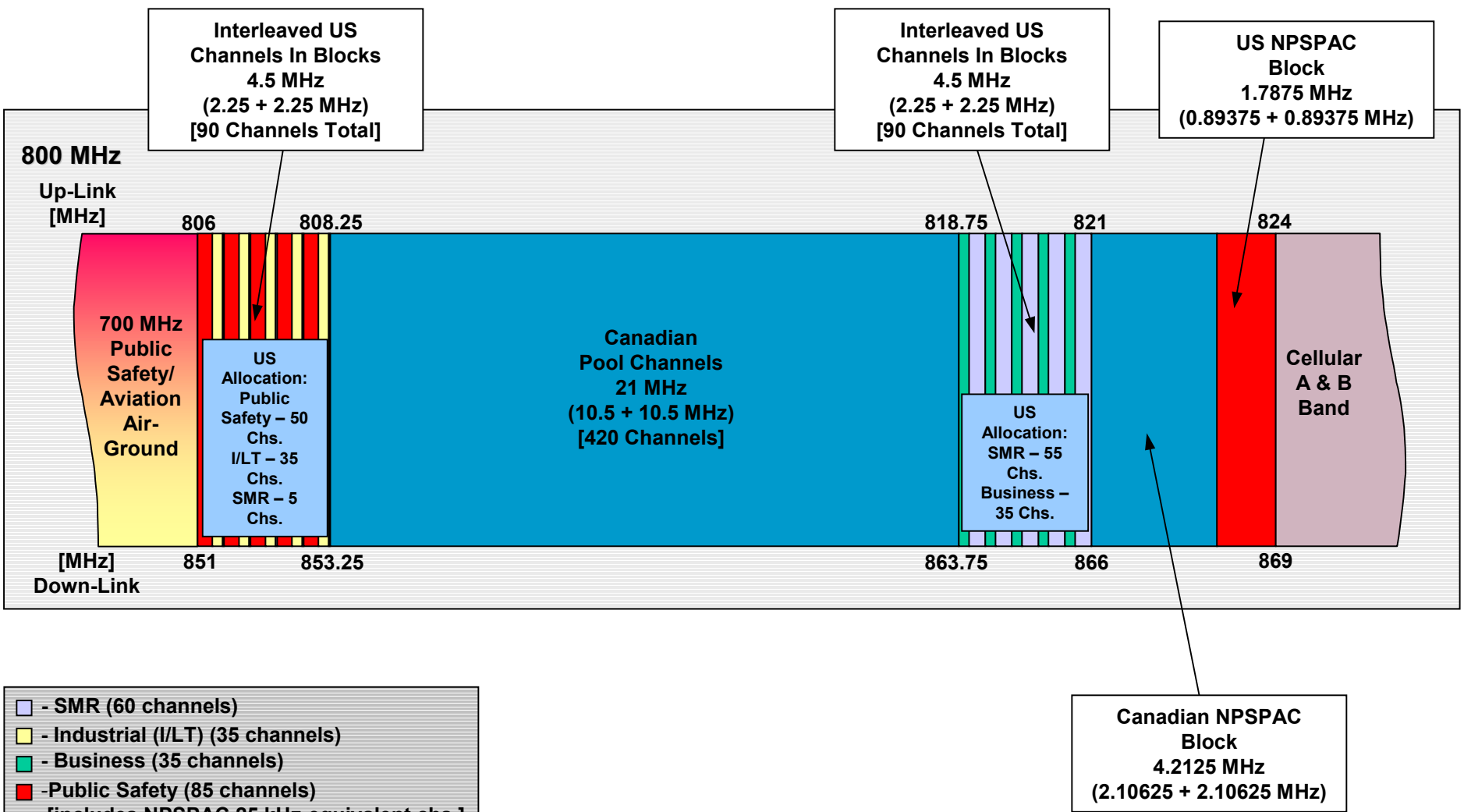
Low Site, Low Power SMR Block 3.8 MHz (1.9 + 1.9 MHz)

Low Site, Low Power SMR Block 5.0875 MHz (2.54375 + 2.54375 MHz)

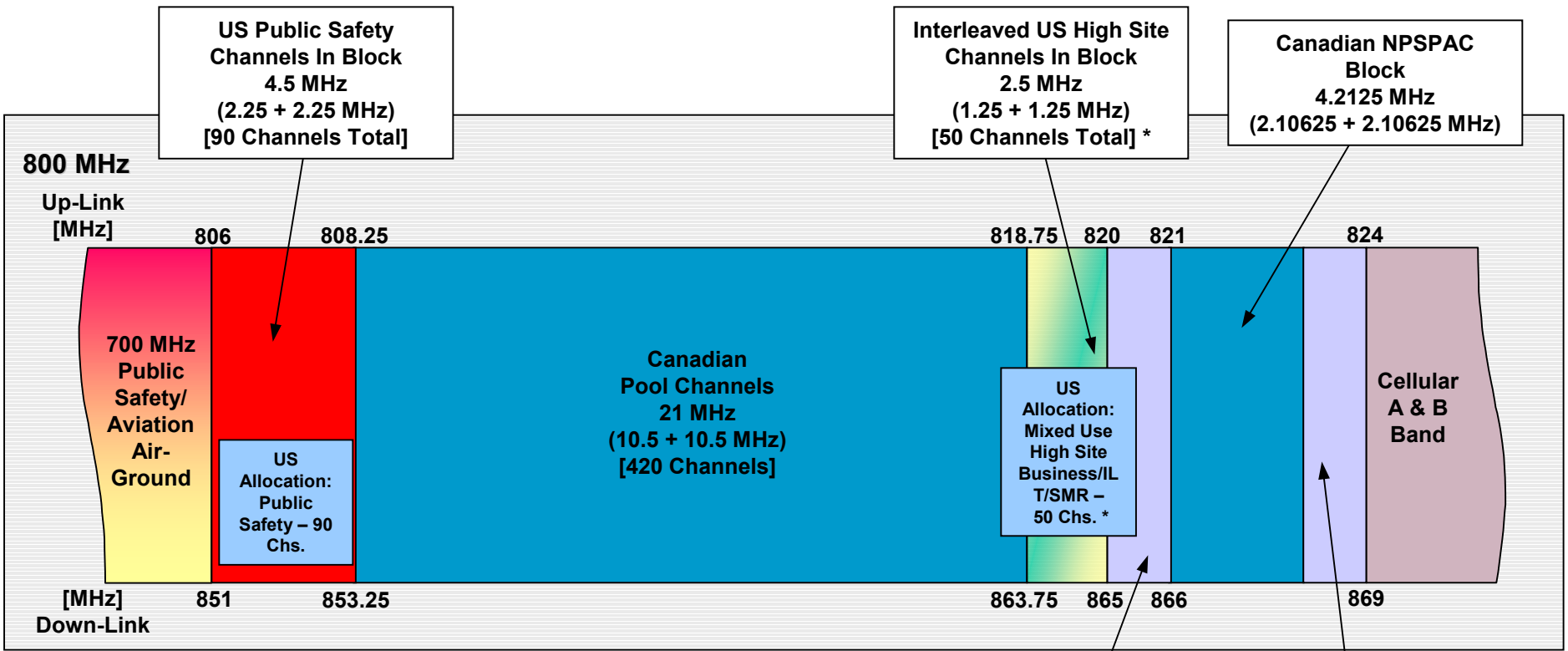
- Low Site, Low Power SMR (177 channels)
- High Site Business/ILT/SMR (128 channels *)
- Public Safety (216 channels) [includes NPSPAC 25 kHz-equivalent chs.]
- Canadian (198 channels) [includes NPSPAC 25 kHz-equivalent chs.]

* - Allocation of 128 channels for High Site Business/ILT/SMR use reflect actual number of licensees currently existing in the band under those radio service codes in Detroit / Cleveland Region 3 area.

G-7: Canadian Border Allocation Today - Region 2



G-8: Canadian Border Re-Allocation - Region 2



This channel plan would not alter the existing channel allocation treaty between Canada and the US.

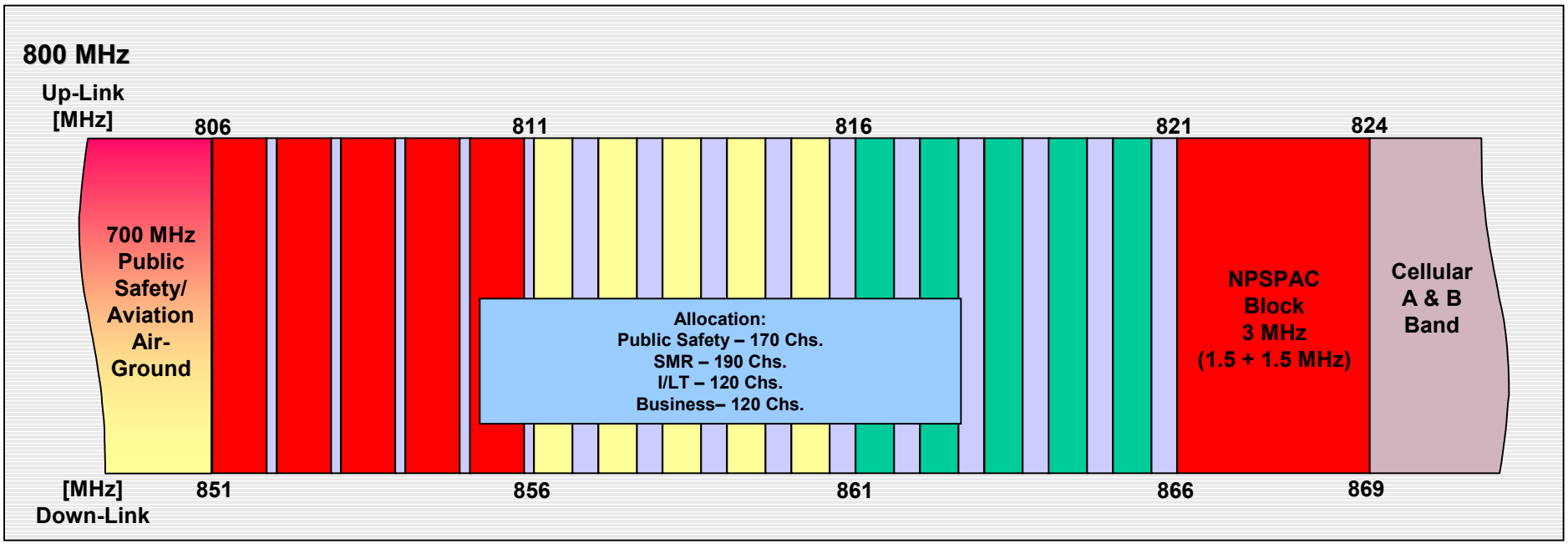
Low Site, Low Power SMR Block 2 MHz (1 + 1 MHz)

Low Site, Low Power SMR Block 1.7875 MHz (0.89375 + 0.89375 MHz)

- Low Site, Low Power SMR (75 channels)
- High Site Business/ILT/SMR (50 channels *)
- Public Safety (90 channels) [includes NPSPAC 25 kHz-equivalent chs.]
- Canadian (504 channels) [includes NPSPAC 25 kHz-equivalent chs.]

* - Allocation of 50 channels for High Site Business/ILT/SMR use reflect actual number of licensees currently existing in the band under those radio service codes in Buffalo / Rochester / Syracuse Region 2 area.

G-9: Canadian Border Allocation Today - Regions 7,8



- SMR (190 channels)
- Industrial (I/LT) (120 channels)
- Business (120 channels)
- Public Safety (290 channels) [includes NPSPAC 25 kHz-equivalent chs.]

G-10: Canadian Border Re-Allocation - Regions 7,8